



2010

The 21st Anniversary
of the Fall of the Berlin Wall



A World Without Walls 2010:

*An International Conference on Peace building, Reconciliation
and Globalization in an Interdependent World*

(Berlin, 6-10 November 2010)

A Response to the Fall of the Berlin Wall: Reconceptualization of Security:

Global Human and Environmental Security Handbook for the Anthropocene

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1. Reasons for Reconceptualization of Security

1st thesis: Three reasons triggered reconceptualization of security

- **End of the Cold War (symbolic date: fall of the Berlin Wall, 9 November 1989)**
- **Globalization: New opportunities and threats of personal (9/11/2001) & structural terrorism (global financial crisis that triggered losses of houses, jobs, food for millions)**
- **Transition from the Holocene to the Anthropocene: Transition of geologic time**

2nd thesis: Since 1994 a major shift has occurred from state-centred to human security concepts!

1.1. A Classical Definition in Political Science & International Relations

- Arnold Wolfers (1962), realist pointed to two sides of security concept:**
- “Security, in an objective sense, measures the absence of threats to acquired values, in a subjective sense, the absence of fear that such values will be attacked”.**
 - Absence of “threats”:** interest of policy-makers;
 - Absence of “fears”:** interest of social scientists;
 - for constructivists:** Reality is socially constructed; Security is what actors make of it!

2. Contextual Changes vs. Conceptual Innovations

- **What has changed? Three Contextual Changes**
 - End of Cold War (1989: 11/9)
 - American Trauma (2001: 9/11)
 - Global Financial Crisis (2008-)
- **What has changed? Conceptual Innovations**
 - Objective, subjective to intersubjective security:
Constructivism & Reflexivism
 - Three centres of innovation on security:
 - Copenhagen: Ole Waever
 - Aberystwyth: Ken Booth
 - Paris: D. Bigot
 - **Waever's Theory of Securitization**

2.1. Which Contextual Change?

- **1989-1991: End of the Cold War (East-West-Conflict): 9 November 1989: Fall of Berlin Wall**
 - **Widening:** from 2 to 5 security dimensions
 - **Deepening:** from national to human security
 - **Sectorialization:** energy, food, health, water security
- **11 September 2001: Increased Vulnerability of U.S.**
 - **G.W. Bush:** Shrinking on weapons of mass destruction, terrorists
 - **Transatlantic dispute on goals: Terrorism vs. Climate Change**
 - **B. Obama:** Widening: multilateralism, hard & soft security issues
- **2008: Econ. crises: econ. & social vulnerability**
 - **Crises, Globalization:** high economic & social vulnerability
 - **Economic & financial insecurity:** increase in food insecurity, poverty: food price protests, hunger riots

2.2. Global Contextual Change: 9 November 1989 or 11 September 2001:

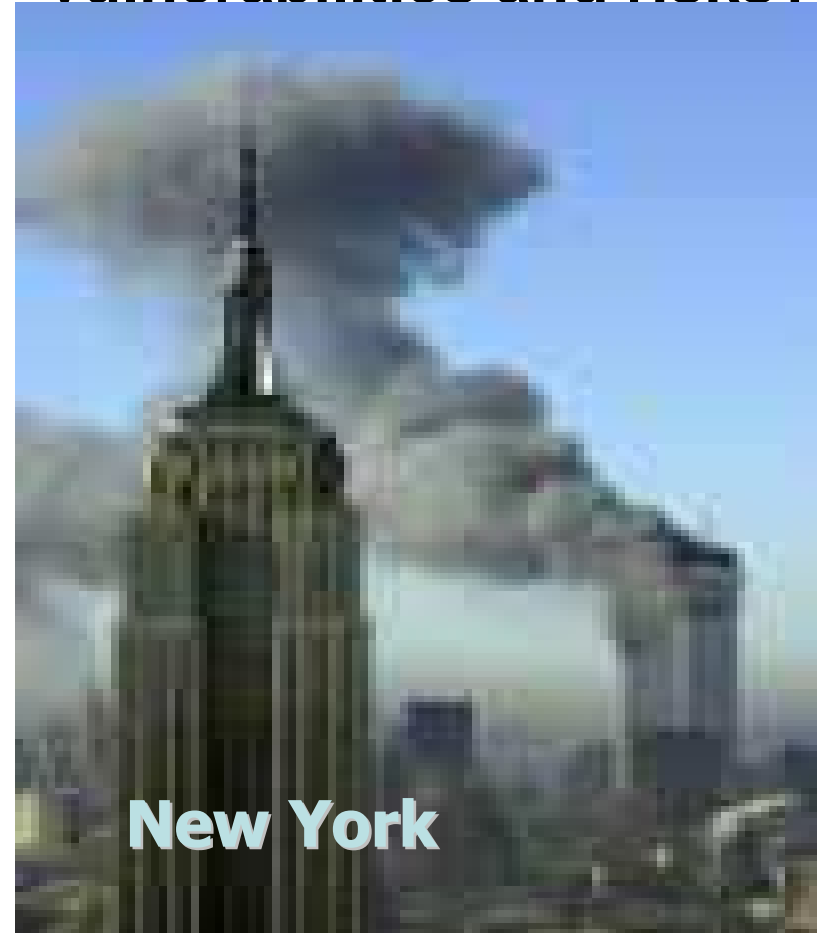
- End of the Cold War?



Berlin

- Reunification of Germany
- Enlargement of the EU

- New threats, challenges, vulnerabilities and risks?

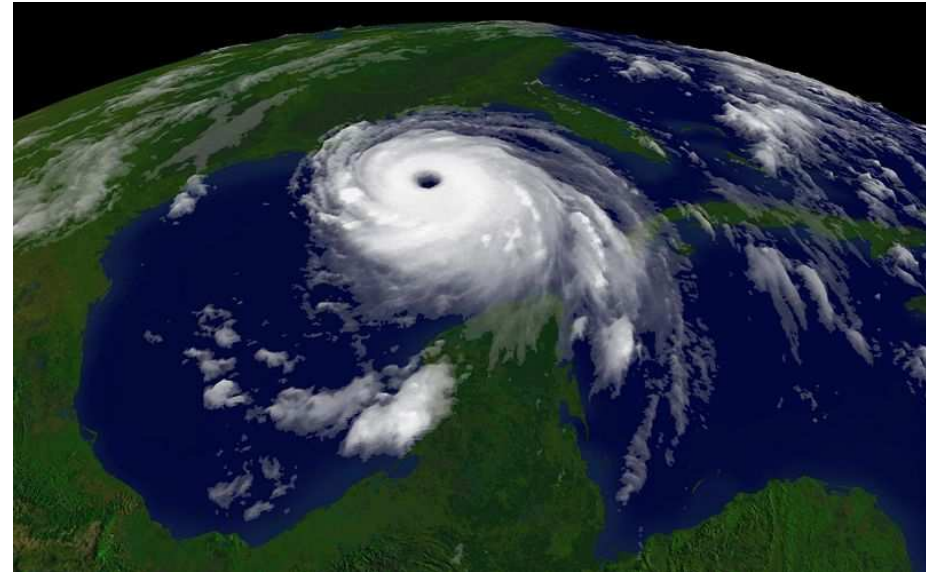


New York

2.3. Two New Security Challenges: Terrorism & Climate Change



- 11 Sept. 2001
- Terrorist Aggression
- Death toll (31 October 2003): 2752
- Surpassed Pearl Harbor (Dec. 1941)
- (9/11 Comm. Report)
- Response: war on terror: Afghanistan, Iraq. This was
- Securitized!



- 29 August 2005: Impact of Hurricane Katrina
- 1838 deaths (official) and
- unofficial death toll 4,081 (?)
- \$81.2 billion (2005 USD)
\$86 billion (2007 USD)
- **This threat was not securitized by the Bush administration!**

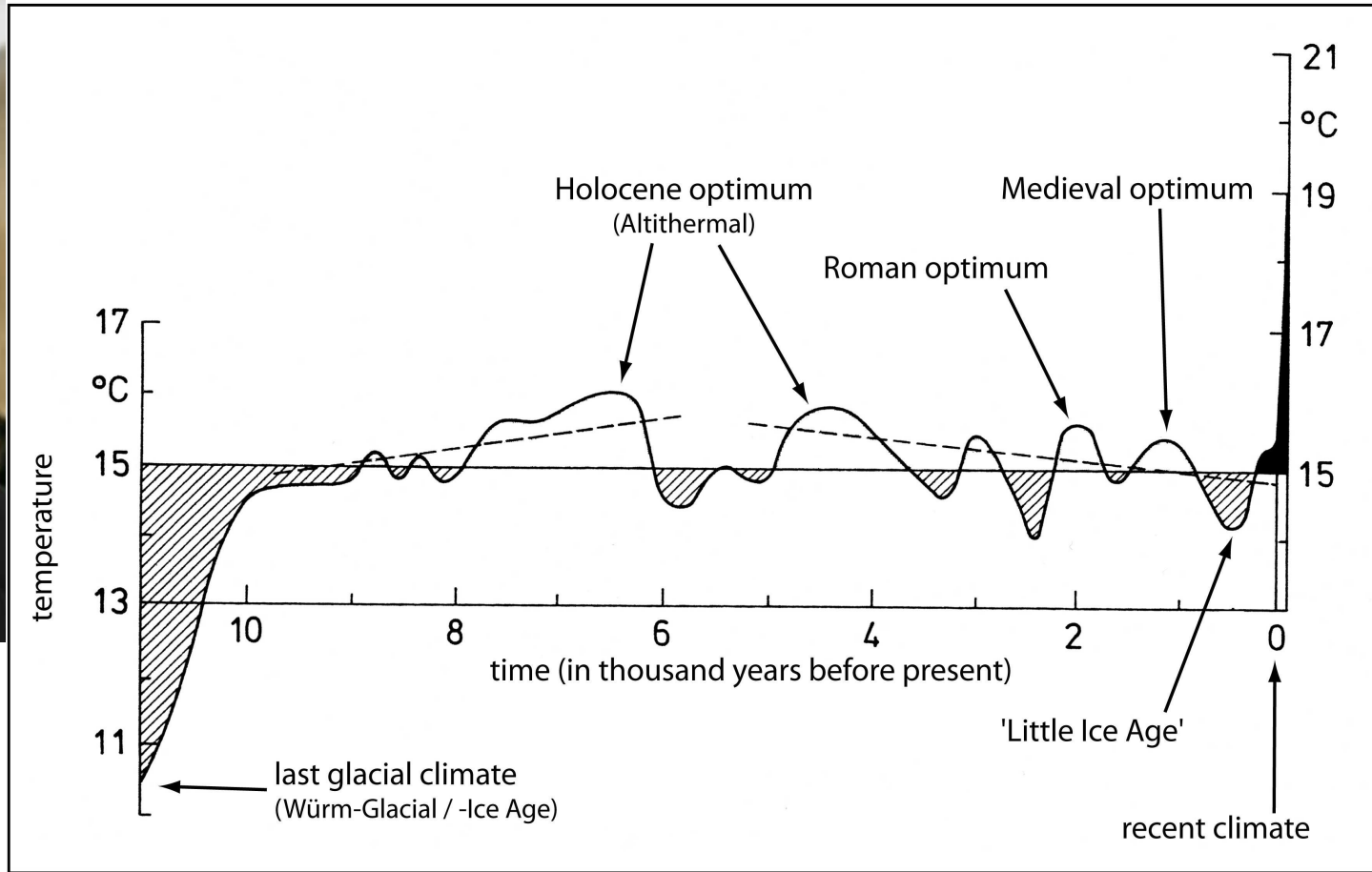
2.4. Globalization: Terrorism, Drugs, Global Financial Crisis

- **Globalization: new actors and processes**
 - Non-state actors: terrorists, organized crime (trafficking of humans, drugs, weapons etc.)
 - Uncontrolled financial flows and speculation:
 - 2008/2009: Global Financial and Economic Crisis
- **Change from Holocene to Anthropocene**
 - **Global Environmental Change:** global climate change, transformation of the security threat: from „them“ to „us“: „we are the threat & victim“ but both are not identical: requires global equitable solutions

2.5. From the **Holocene** (12.000 years b.p.) to the **Anthropocene** (1784 AD)

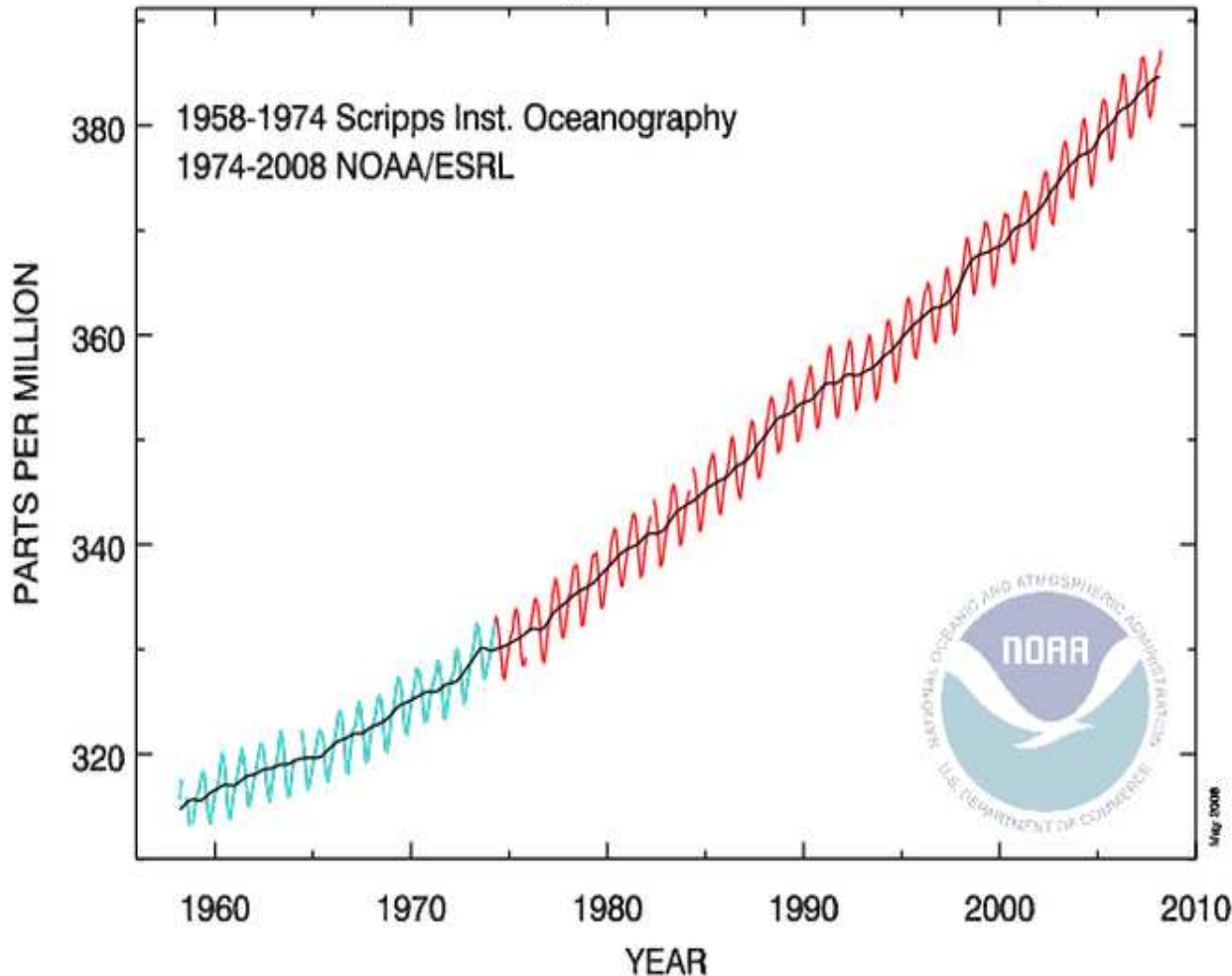


**Paul Crutzen,
Nobel Laureate for
Chemistry (1995)**



In Geology/geography: **Holocene** era of earth history since end of glacial period (10-12.000 years ago, Anthropocene, since industrial revolution (1784, J.Watt's invention of steam engine: anthropogenic climate change: burning of coal.oil,gas→GHG increase

2.6. Anthropogenic Climate Change in the Anthropocene Era (1750 to present)



- **GHG concentration in the atmosphere**
- **1750: 279 ppm, 1987: 387 ppm**
- **1/3: 1750-1958: 279 to 315 ppm**
- **2/3: 1958-1987: 315 to 387 ppm**

3. Widening, Deepening & Sectorialization of Security

- **Response: Widening, Deepening and Sectorialization of Security**
 - **Widening:** from political, military to economic, societal and environmental
 - **Deepening:** from state-centred to human-centred perspective
 - From national to human security
 - **Sectorialization:**
 - energy, food, health, water and soil security

3.1. Widening of Security Concepts: Towards Environmental Security

4 trends in reconceptualisation of security since 1990:

- **Widening** (dimensions, sectors), **Deepening** (levels, actors)
- **Sectorialisation** (energy, food, health),
- **Shrinking** (WMD, terrorists)

Dimensions & Levels of a Wide Security Concept

Security dimension ⇒ ↓ Level of interaction	Military	Political	Economic	Environmental ↓	Societal
Human individual ⇒			Food sec. Health sec.	Cause & Victim	Food sec. Health sec.
Societal/Community				↓↑	
National	Narrow: Cold War		Energy se.	↓↑	Food, health
International Regional			Water security	↓↑	Water security
Global/Planetary ⇒				GEC	

4. From International & National to four Pillars of Human Security

- **International Peace & Security:** League of Nations (1919): “high contracting parties”; UN Charter (1945): “*We the peoples of the United Nations*”
- **National Security:** new U.S. concept World War II, post WW II: National Security Act (1947), before: goal defence, means: Army (War Dep.), & Navy Dept.
- **Alliance Security:** NATO (1949-), WP (1955-2001)
- **Common Security** (Palme Report 1982)
- **Environmental Security** (Brundtland 1987, Gorbachev 1988)
- **Cooperative Security:** Brookings Institution (1990’s)
- **Human Security:** UNDP (1994): 4 pillars of HS
 - Freedom from fear: humanitarian law agenda (Norway, Canada)
 - Freedom from want: development agenda (Japan & developing c.)
 - Freedom to live in dignity: democratic governance, human rights
 - Freedom from hazard impacts: natural hazard & disaster agenda

4.1. Which studies spurred the change?

- 1. Arthur Westing: introduced concept in 1989**
- 2. United Nations Development Programme (1994)**
- 3. UNESCO: Decade for a Culture of Peace and Non-Violence for the Children of the World**
- 4. Commission on Human Security: Human Security Now: S. Ogata/Armatya Sen (2003)**
- 5. Kofi Annan's Report: In Larger Freedom (2005)**
- 6. UN, GA, *World Summit Outcome*, 24 October 2005:**

143. We stress the right of people to live in freedom and dignity, free from poverty and despair. We recognize that all individuals, in particular vulnerable people, are entitled to freedom from fear and freedom from want, with an equal opportunity to enjoy all their rights and fully develop their human potential. To this end, we commit ourselves to discussing and defining the notion of human security in the General Assembly.

4.2. Four Pillars of Human Security

- **“Freedom from want” human development agenda: poverty** (stimulated by Asian economic crisis of 1990s) by reducing social vulnerability through poverty eradication programmes (UNDP 1994; CHS: Ogata/Sen: Human Security Now, 2003, Human Security Trust Fund, HSU of OCHA), **Japanese approach**;
- **“Freedom from fear”**: humanitarian agenda: **violence, conflicts, weapons** (Canada, Norway, Human Security Network) (UNESCO, HSN), **Canadian approach**: Human Security Rep.(2005)
- **“Freedom to live in dignity”**: agenda: **rule of law, human rights, democratic governance** (Kofi Annan: *In Larger Freedom* (March 2005))
- **“Freedom from hazard impact”**: **environmental (GEC) & natural hazard agenda**: Bogardi/Brauch vision, goal: securitize: “environment” (GEC as pressure) and “natural hazards” as impact by reducing environmental & social vulnerability & enhancing coping capabilities of societies confronted with natural & human-induced hazards (Bogardi/Brauch 2005; Brauch 2005a, 2005b): Greek Presidency of HSN.
- **Japan-Mexico: coordinators of Friends of Human Security**

4.3. Human Security Network Members

NATO	EU	Third World
Canada		Chile
Greece Slovenia	Austria Ireland	Costa Rica Jordan Mali Thailand
Norway	Switzerland	South Africa (observer)

The Network has an interregional & multiple agenda perspective, strong links to civil society & academia.

The Network emerged from landmines campaign at a Ministerial, Norway, 1999.

Conferences at Foreign Ministers level in Bergen, Norway (1999), in Lucerne, Switzerland (2000), Petra, Jordan (2001) **Santiago de Chile (2002)**, Graz (2003), Bamako, Mali (May 2004), Canada (2005), Thailand (2006), Slovenia (2007), Greece (2008); Ireland (2009), **Costa Rica (2010)**

Anti-pers. Landmines, Intern. Criminal Court, protection of children in armed conflict, control of small arms & light weapons, fight against transnational organized crime, human development, human rights educat., HIV/AIDS, implement. of intern. humanitarian & human rights law, conflict prevention

So far no environmental security issues on the agenda of this HS-Network.

5. Sectorialization of Security Concepts

Coined by International institutions

- **to legitimate their activities in terms of security**
- **to securitize climate change impacts**

Securitizing Water: water security concepts

Securitizing Food: food security concept

Securitizing Soil: desertification and the new soil security concept

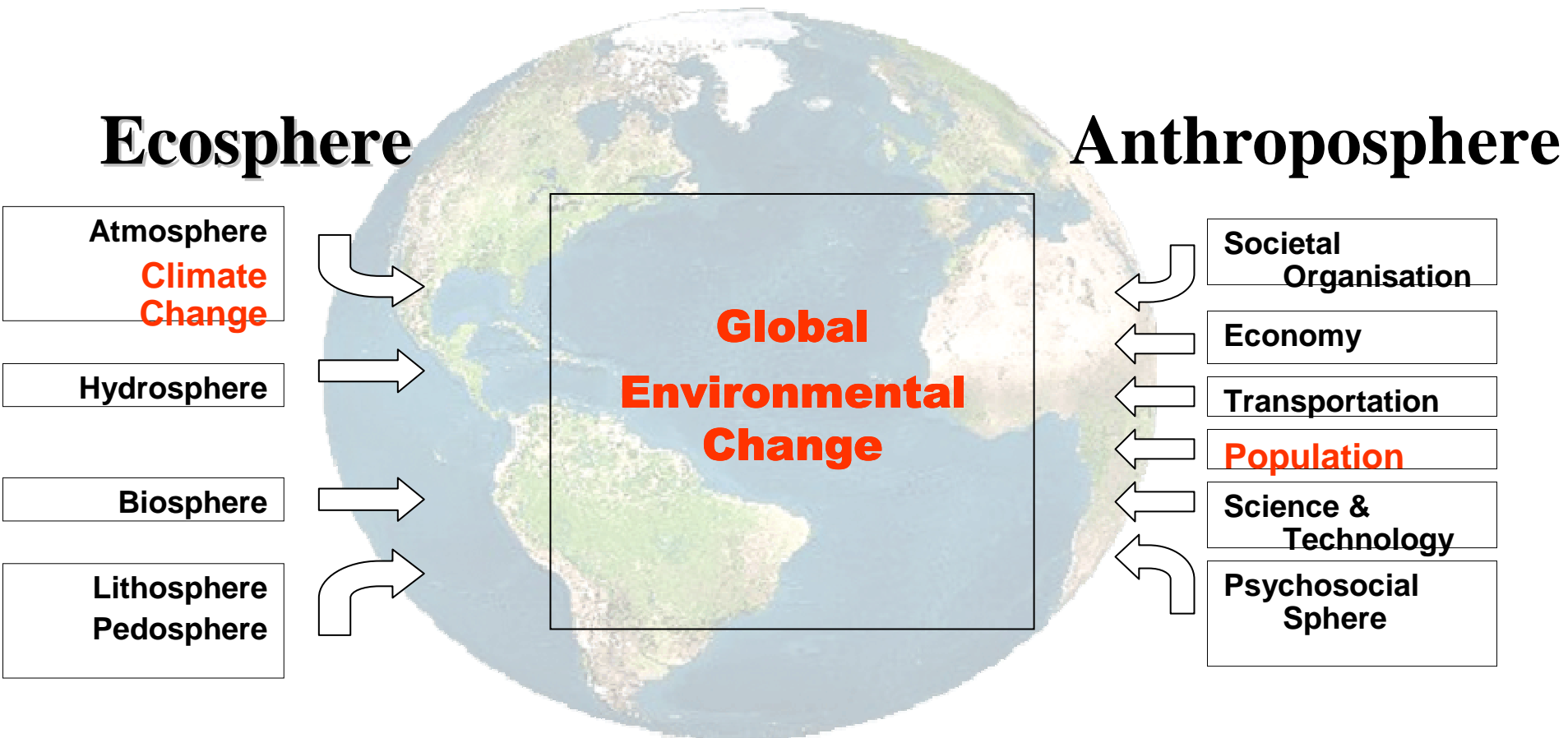
Securitizing Health: health security concepts

Securitizing Energy: demand vs. supply security

6. Global Climate Change and International, National & Human Security

- Since 1970/80s: '*global environmental change*' (GEC) a new topic in natural and social sciences
- Since late 1980s and 1990s policy efforts on:
 - **Climate Change**: 1988: issue of G7; 1990: UN GA mandate; 1992: Rio summit: **UNFCCC (1992)** and **Kyoto Protocol (1997)**
 - **Desertification**: **UNCCD (1994)**
- Since 2000: both are considered as security issues
 - **Since 2000**: climate change seen as a security threat/risk
 - **Valencia: 2003**: NATO Conference: Desertification as a security issue in the Mediterranean
- Since 2007: two debates on climate change & security
 - **UN vs. EU Debates: climate change and international security**
 - **US debate on climate change: new threats for national security**

6.1. Global Environmental Change (GEC)



GEC poses a threat, challenge, vulnerabilities and risks for human security and survival.

6.2. Global Climate Change: 2001-2007

Temperature Increases & Sea Level Rise

Climate Change Impacts: Temperature & Sea level Rise

- ❖ Global average temperature rise in 20th century: **+ 0.6°C**

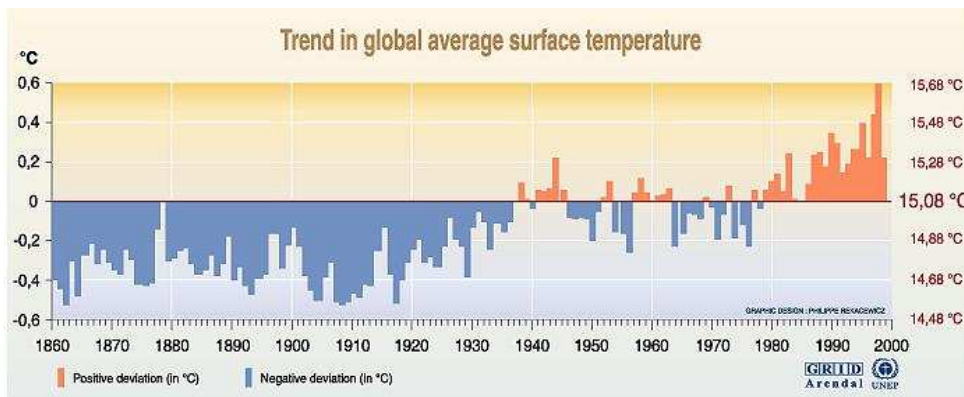
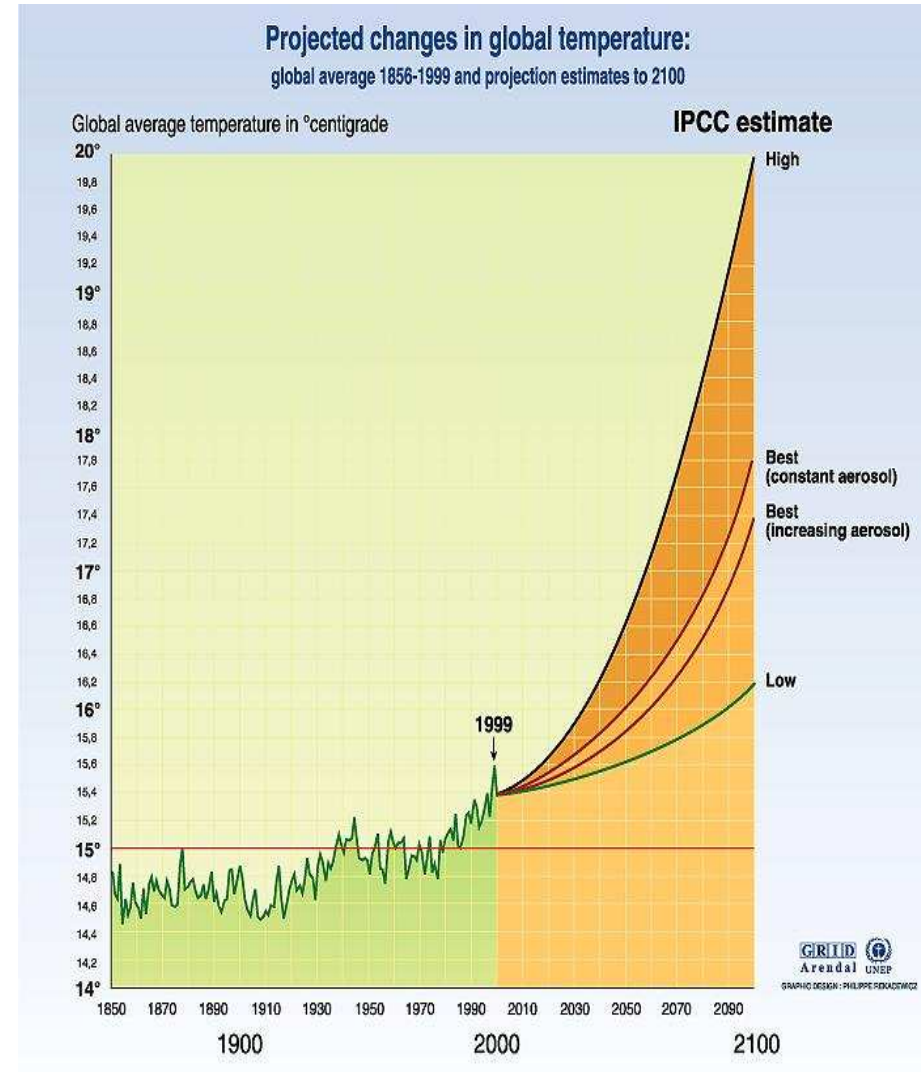
Projected temperature rise:

- ❖ TAR (1990-2100): **+1.4-5.8°C**
- ❖ AR4 (07): **+1.1-6.4 (1.8-4)°C**

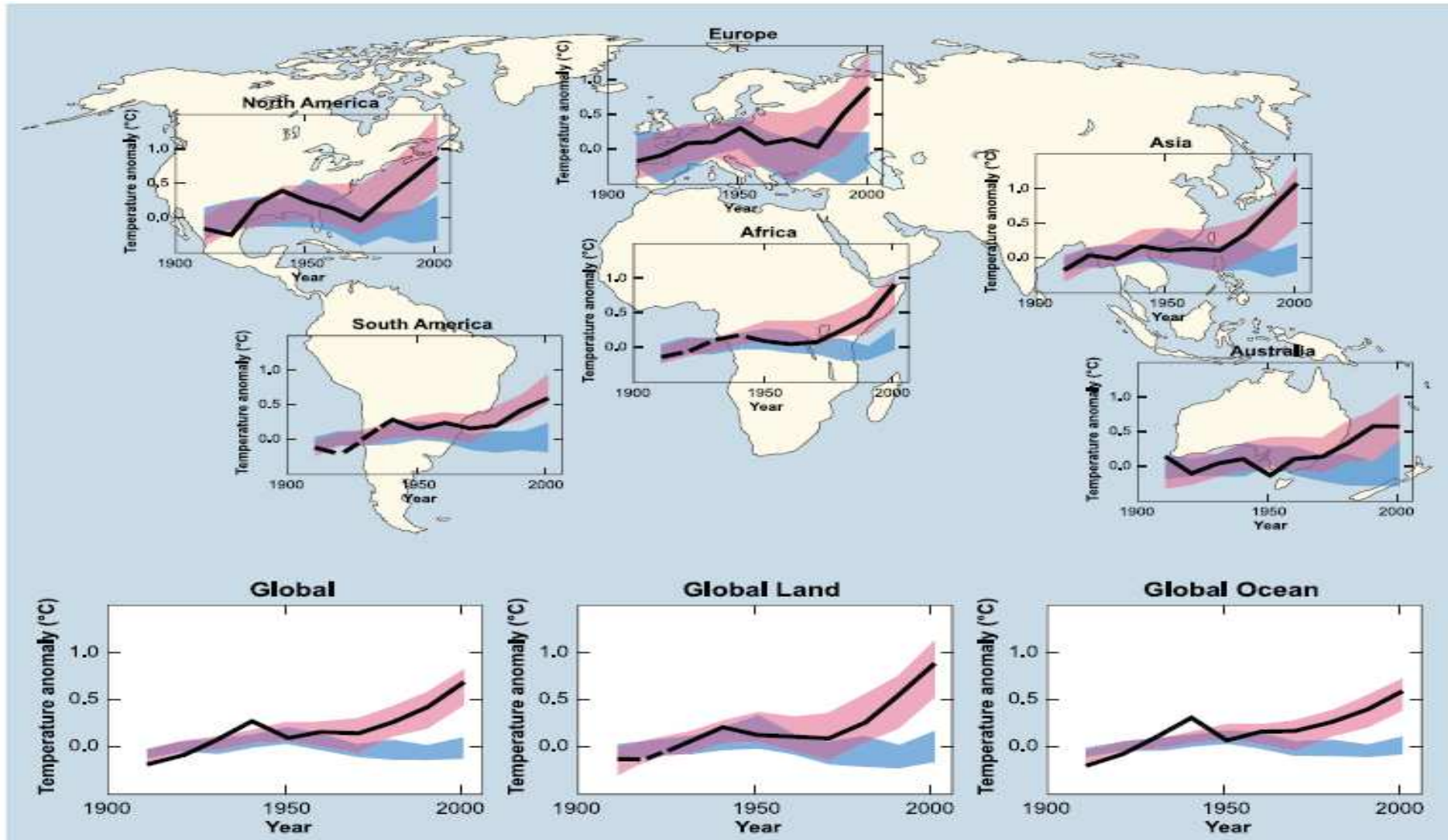
Sources: IPCC 1990,1995,2001,2007

Sea level Rise:

- ❖ 20th cent.: **+0,1-0,2 metres**
- ❖ TAR: 21st century: **9-88 cm**
- ❖ AR4 (2000-2100): **18-59 cm**



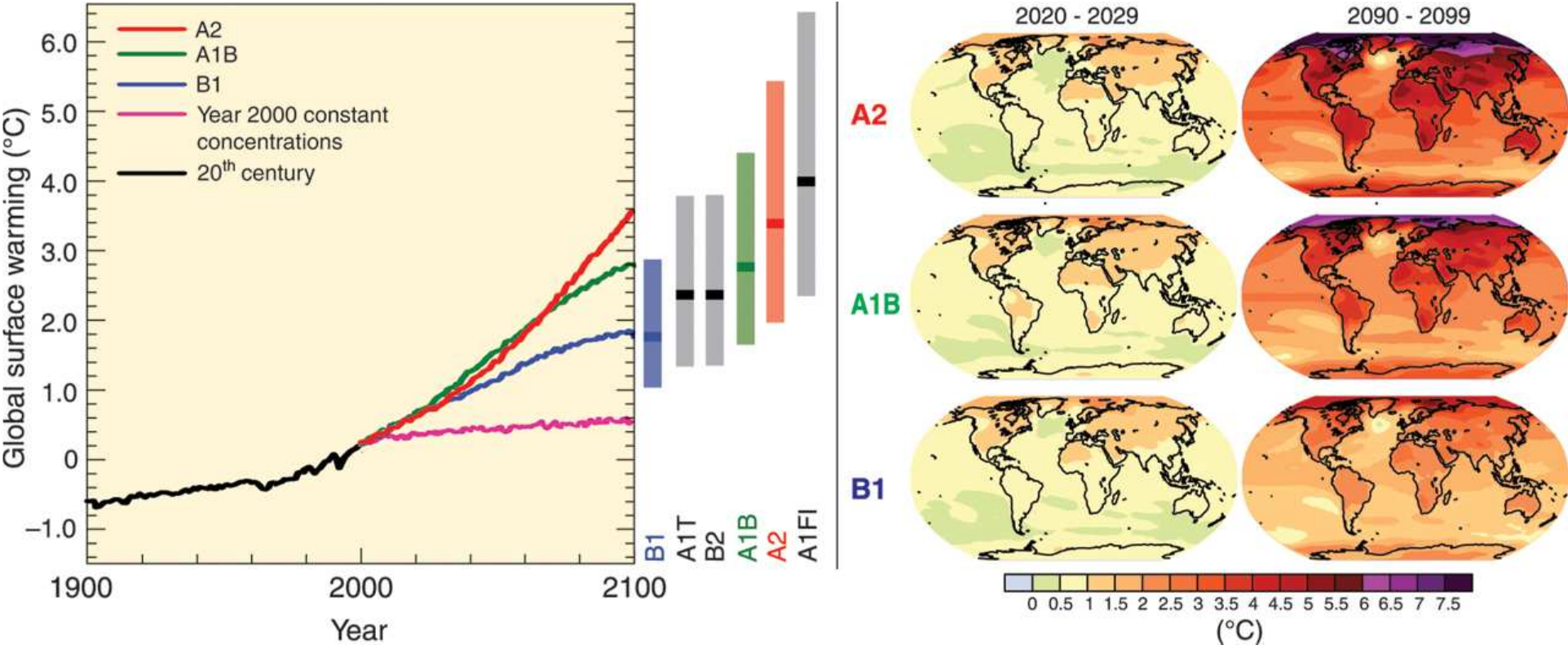
6.3. Global and Regional Change in Temperature (IPCC 2007, WG 1, AR4, p. 11)



models using only natural forcings
models using both natural and anthropogenic forcings

observations

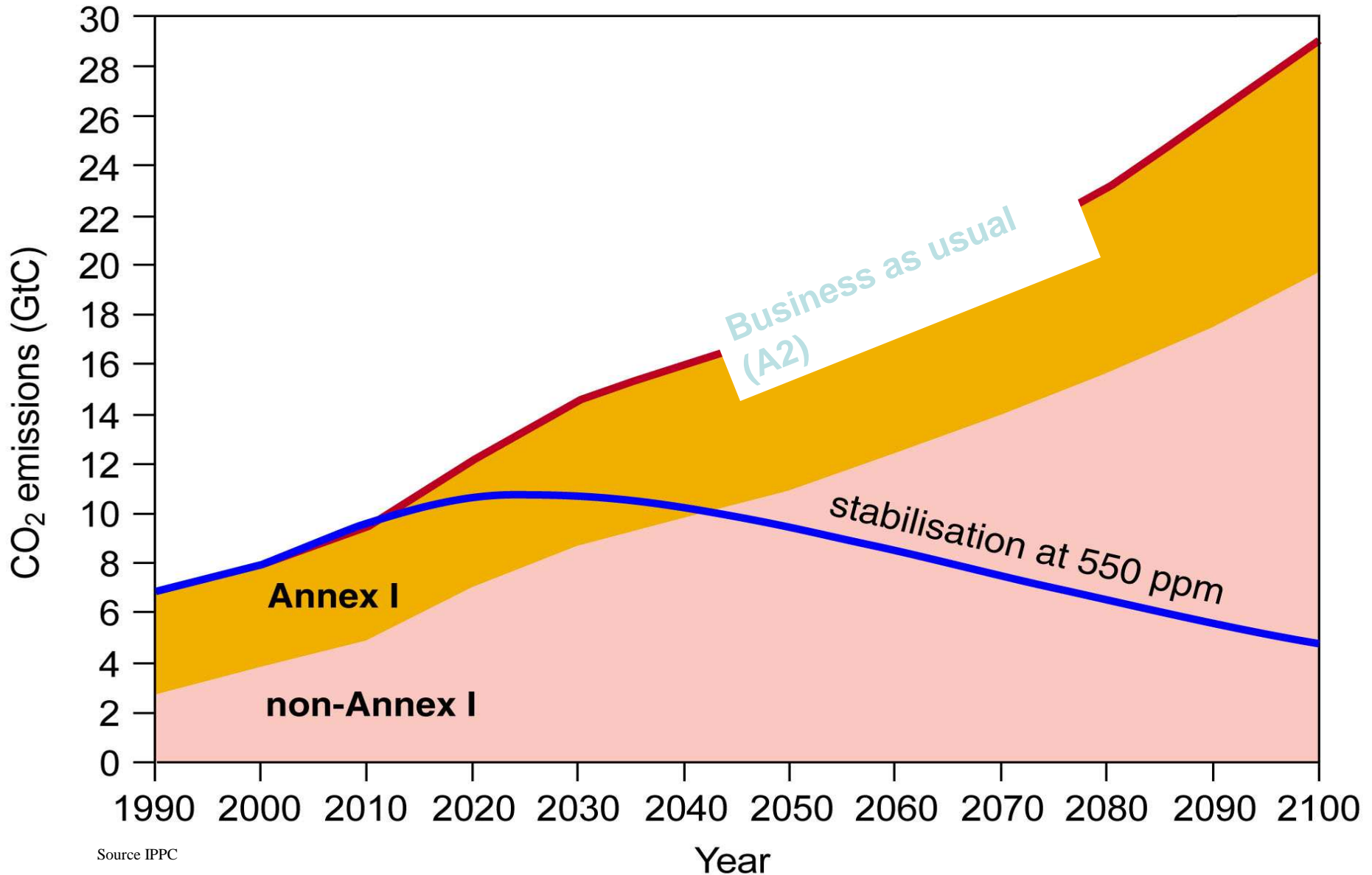
6.4. Anthropogenic Climate Change in the Anthropocene (1900-2100)



- **Three Regimes for Temperature Increase**

- **+2°C: certain: EU Stabilization goal (decision in Copenhagen COP 15)**
- **+4°C: probable, without immediate Stabilization Measures**
- **+6°C: possible (business as usual) (catastrophe scenario)**

6.5. Projection: Stabilization at 550 ppm

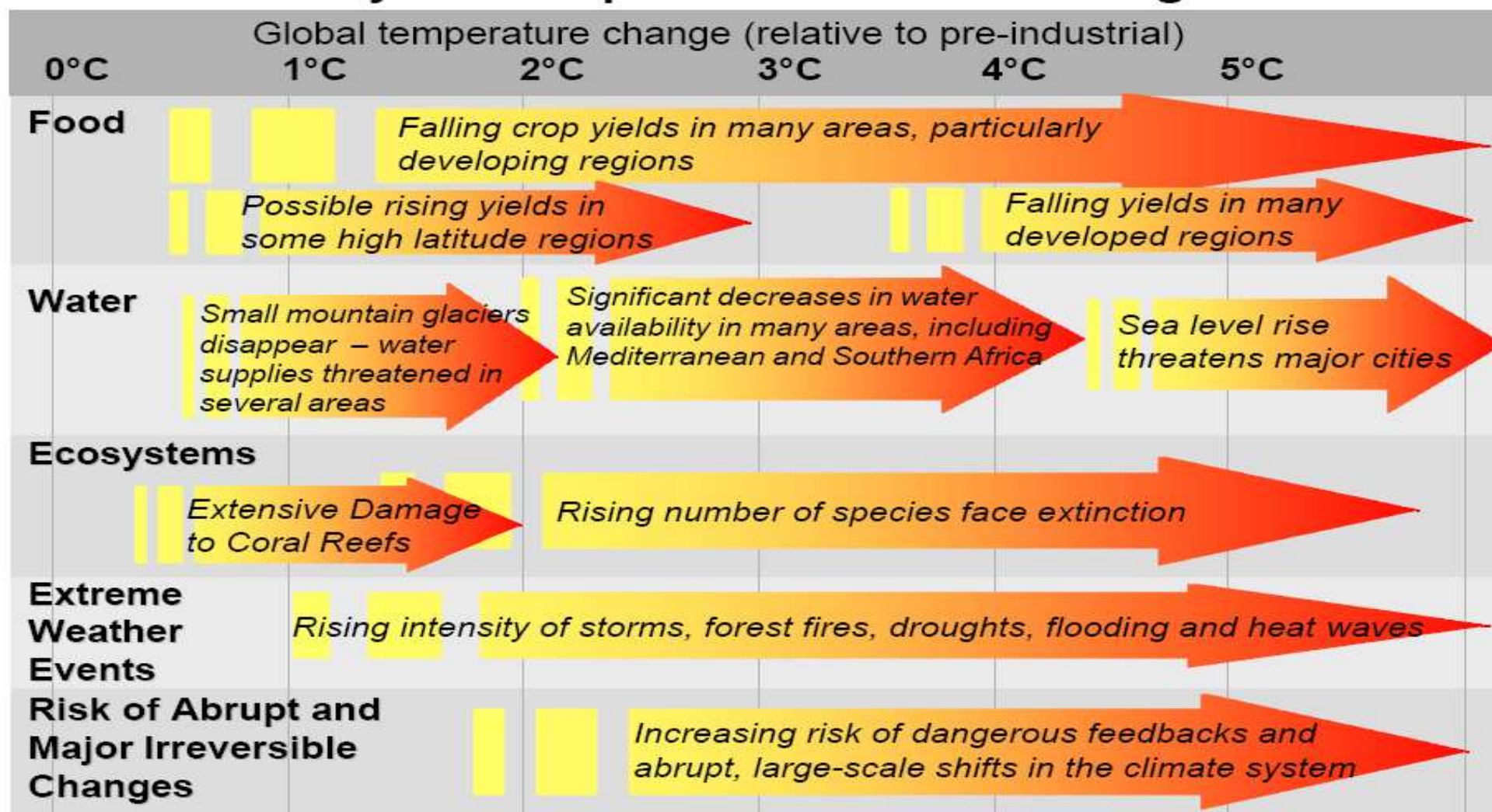


6.6. Projected Increase of Sea Level Rise (IPCC chair, Pachauri, 2008)

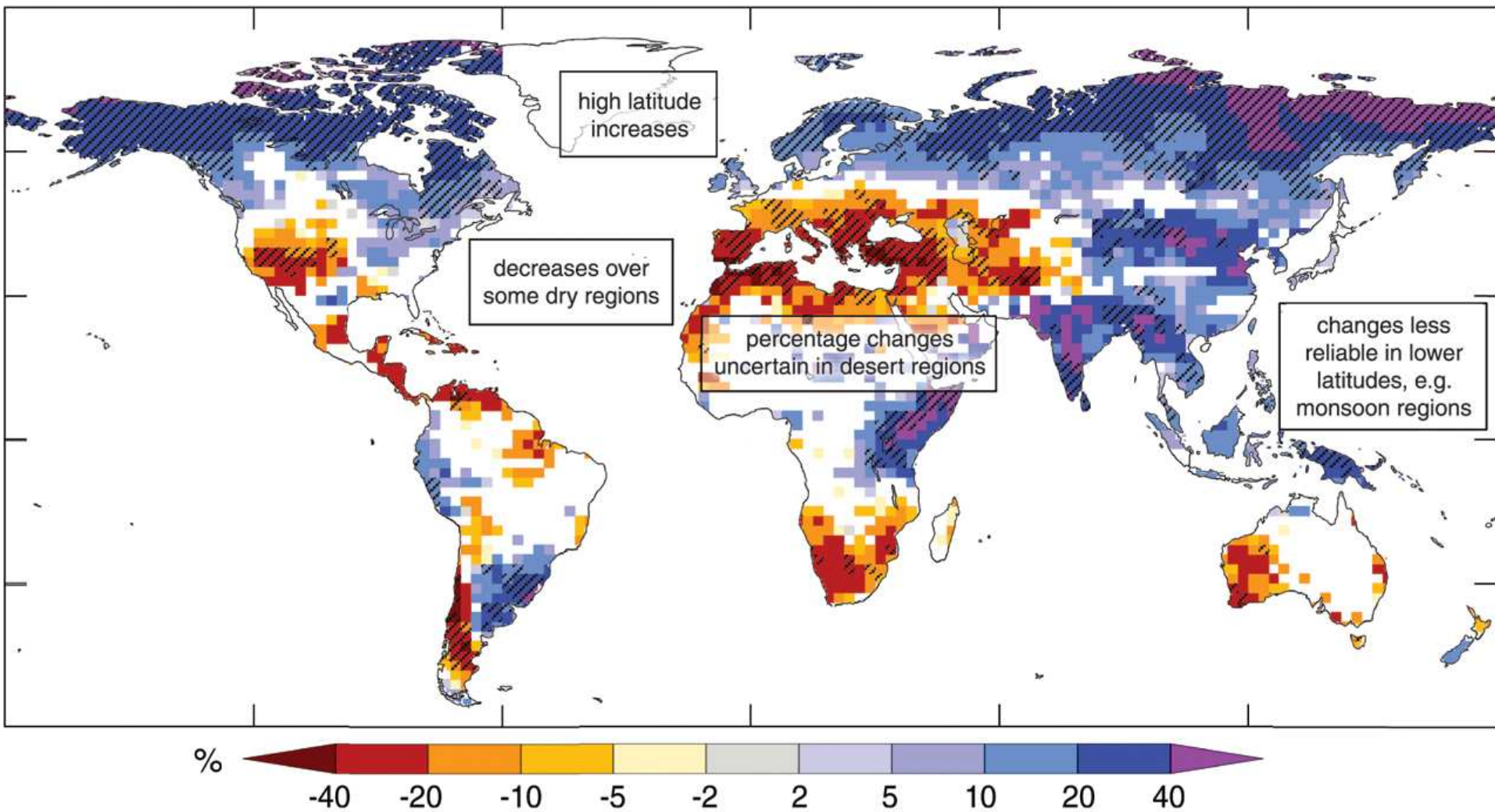
Stabilization level (ppm CO ₂ -eq)	Global mean temp. increase (°C)	Year CO ₂ needs to peak	Global sea level rise above pre-industrial from thermal expansion (m)
445 – 490	2.0 – 2.4	2000 – 2015	0.4 – 1.4
490 – 535	2.4 – 2.8	2000 – 2020	0.5 – 1.7
535 – 590	2.8 – 3.2	2010 – 2030	0.6 – 1.9
590 – 710	3.2 – 4.0	2020 – 2060	0.6 – 2.4

6.7. Projected Impacts of Temperature Rise due to Climate Change

Projected Impacts of Climate Change



6.8. Projections and model consistency of relative changes in runoff by end of 21st century



6.9. Climate Change as an Issue of International Politics and Security

Objective: climate change has influenced history for millennia

Subjective: perception of climate change as a scientific & political issue and as a security challenge

Scientization: Tyndal (UK) Arrhenius (Sweden 1896): scientific debate started in 1970s

Politicization Climate Change as an issue of IR since 1988

- 1988: Reagan Admin. put CC on agenda of G-7
- 1990: IPCC set up by UN General Assembly
- 1992: Rio Earth Summit: UNFCCC signed
- 1997: Kyoto protocol approved (-5.1% by ,08)
- 2007: Bali Road Map to COP 15: Copenhagen

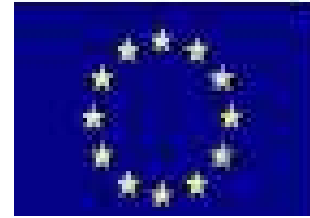
Securitization of climate change (since 2000)

- Problem of environmental security: BMU (2002)
- Problem of national security (UK, USA, 2004, 2007)
- Problem of international security: UNSC (2007), UN-GA, SC (2009)
- Problem of human security (GECHS, 2005; HSN: Greece 2007/2008) 28

6.10. Securitization of Global Environmental & Climate Change

- **3-fold debate & discourse on Climate Change**
 - **Theory: Securitization by O. Waever (Copenhagen)**
 - **International Security**
 - British, German and European debate (2001-2002)
 - goal: Strategy of conflict prevention through pro-aktive action: Environment-, development- & economic policy
 - **National Security:** (since 2003/2004) especially in USA
 - US debate: 2003/2004: Randall/Schwartz
 - 2007: new military missions for Pentagon
 - **Human Security:**
 - **GECHS Project of IHDP:** social vulnerability of poor and marginalized people, workshop in 2005: (1999-2009)
 - **Human Security Network:** Greek presidency (2007-2008)

6.11. EU Paper: Climate Change & International Security (March 2008)



- **Climate change ... as a threat multiplier of existing trends, tensions and Instability, that overburdens fragile and conflict prone states and regions**
- **Seven intern. Security threats from climate change:**
 - 1) Resource conflicts (Water, soil, food);
 - 2) Economic damage and Risks for coastal cities;
 - 3) Loss of Territory and border conflicts;
 - 4) environmentally-induced migration;
 - 5) Situations of Fragility and radicalization
 - 6) Tensions on energy supply
 - 7) Pressure on international politics
- **Regions, where these threats become manifest**
 - Africa, Middle East, South Asia; Central Asia, Latin America, Arctic.
- **Central challenge: Environmental Migration**



6.12. UN: Climate Change and International Security

17 April 2007: UN Security Council: tabled by Ms.Beckett (UK)

<http://www.un.org/News/Press/docs/2007/sc9000.doc.htm>

<http://www.un.org/News/Press/docs/2007/sgsm10949.doc.htm>

3 June 2009: UN General Assembly Resolution:

- 1. *Invites* the relevant organs of the United Nations, as appropriate and within their respective mandates, to intensify their efforts in **considering and addressing** climate change, including its possible security implications;
- 2. *Requests* the Secretary-General to submit a **comprehensive report** to the General Assembly at its sixty-fourth session on the **possible security implications of climate change**, based on the views of the Member States and relevant regional and international organizations.

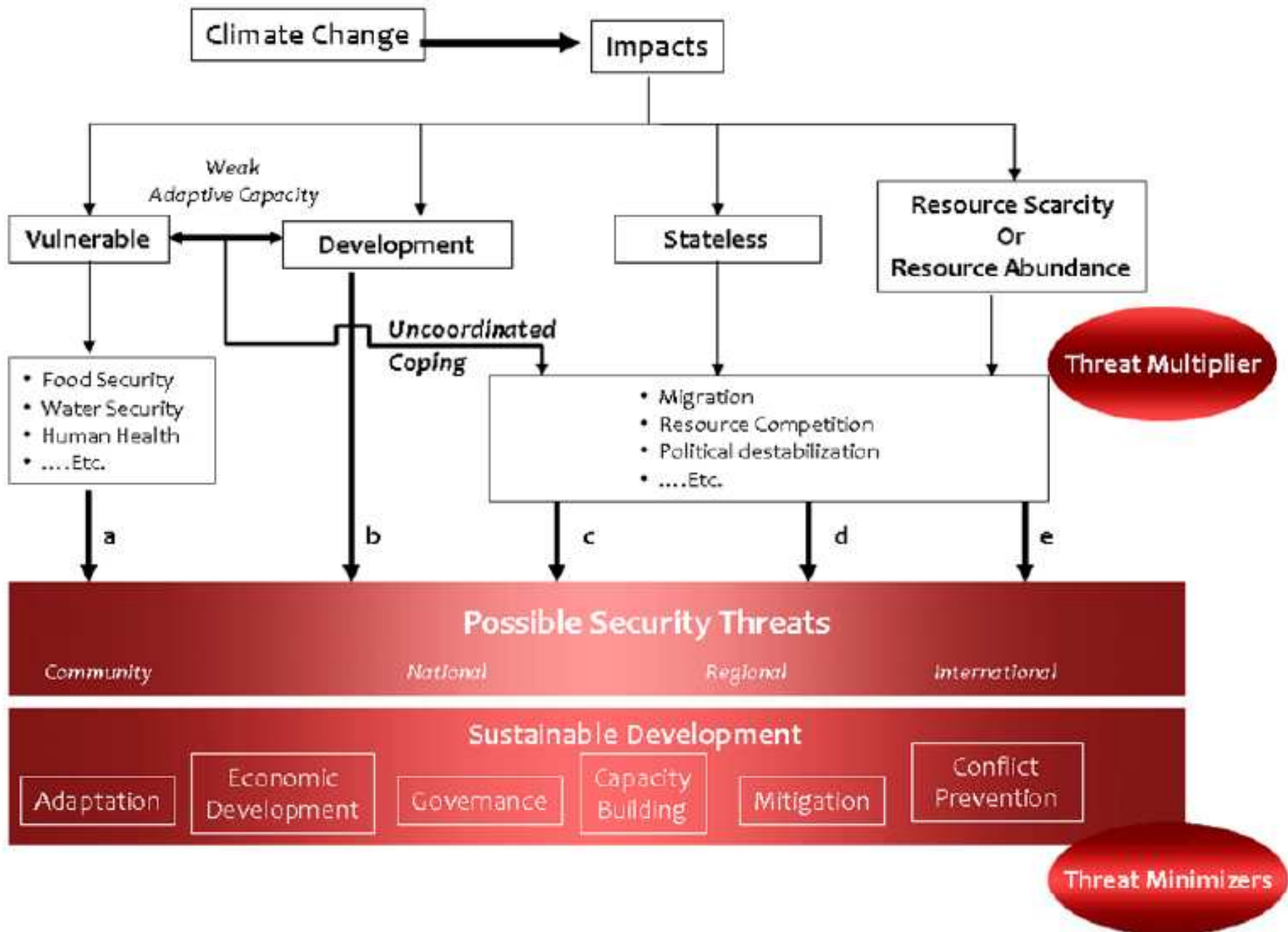
August-September 2009: submission by states (31 replies)

- http://www.un.org/esa/dsd/resources/res_docugaecos_64.shtml

11 September 2009: Report by Ban-Ki Moon

http://www.un.org/ga/search/view_doc.asp?symbol=A/64/350

Threat multipliers and threat minimizers: the five channels



Source: United Nations Secretariat, based on submissions of Member States and relevant organizations.



6.16. Climate Change & National Security: USA



Climate changes as a threat for US national security Search for military answers & new DoD missions

- **Pentagon study** of Schwartz/Randall: (2003, 2004)
- **April 2007: CNA: *National Security & the Threat of Climate Change*** (April 2007): climate change as a threat multiplier in vulnerable regions for US security
- **November 2007**, *Center for Strategic and Intern. Studies (CSIS); Centre for a New American Security (CNAS): The Age of Consequences: The Foreign Policy and National Security Implications of Global Climate Change*

US National Security Strategy 2010

- **The danger from climate change is real, urgent, and severe.** The change wrought by a warming planet will lead to new conflicts over refugees and resources; **new suffering from drought and famine; catastrophic natural disasters;** and the **degradation of land across the globe.** The United States will therefore confront climate change based upon clear guidance from the science, and in cooperation with all **nations—for there is no effective solution to climate change that does not depend upon all nations taking responsibility for their own actions and for the planet we will leave behind.**

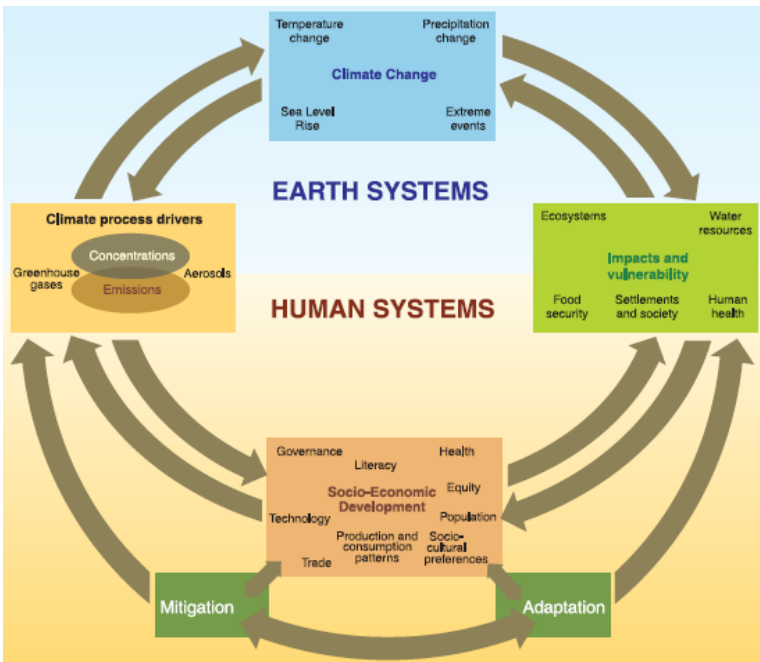


6.18. Climate Change & Human Security



- **IHDP-GECHS** (Global env. change & human security)
 - **Symposium: climate change & human security (2005)**
 - **Synthesis conference: Research (1999-2009) in Oslo**
- **Greek Presidency of the HSN (2007/2008)**
 - **Conference in May 2008 in Athens: Final declaration**
 - **Impact of climate change on vulnerable groups: women, children, environmental migrants in developing countries**
 - **Policy paper: Climate change, human security and development**
 - **3rd pillar of human security: “freedom from hazard impact”**
- **Policy Memorandum 15 April 2007: for UN SC debate**
 - Wisner, Brauch, Oswald Spring u.a.
- **Friends of Human Security: Japan & Mexico: June 2009**
- **Debate in UN General Assembly**
 - **May 2007: human security: climate change as a threat**
 - **June 2009: Resolution on climate migration: international peace & security**

7. Addressing Linkages of Global Climate Change and Security



- **Three Schools or Approaches**
 - Dramatizers: Climate war
 - Sceptics: lack of research (PRIO)
 - Observations & future scenarios

• Causal analysis

- Natural phenomena -> migration, crises, conflicts (violence)
 - 2nd phase: Homer-Dixon, Bächler
 - 4th phase: Oswald – Brauch - Dalby

• Discourse analysis: climate change

- International security
- National security
- Environmental security
- Human security

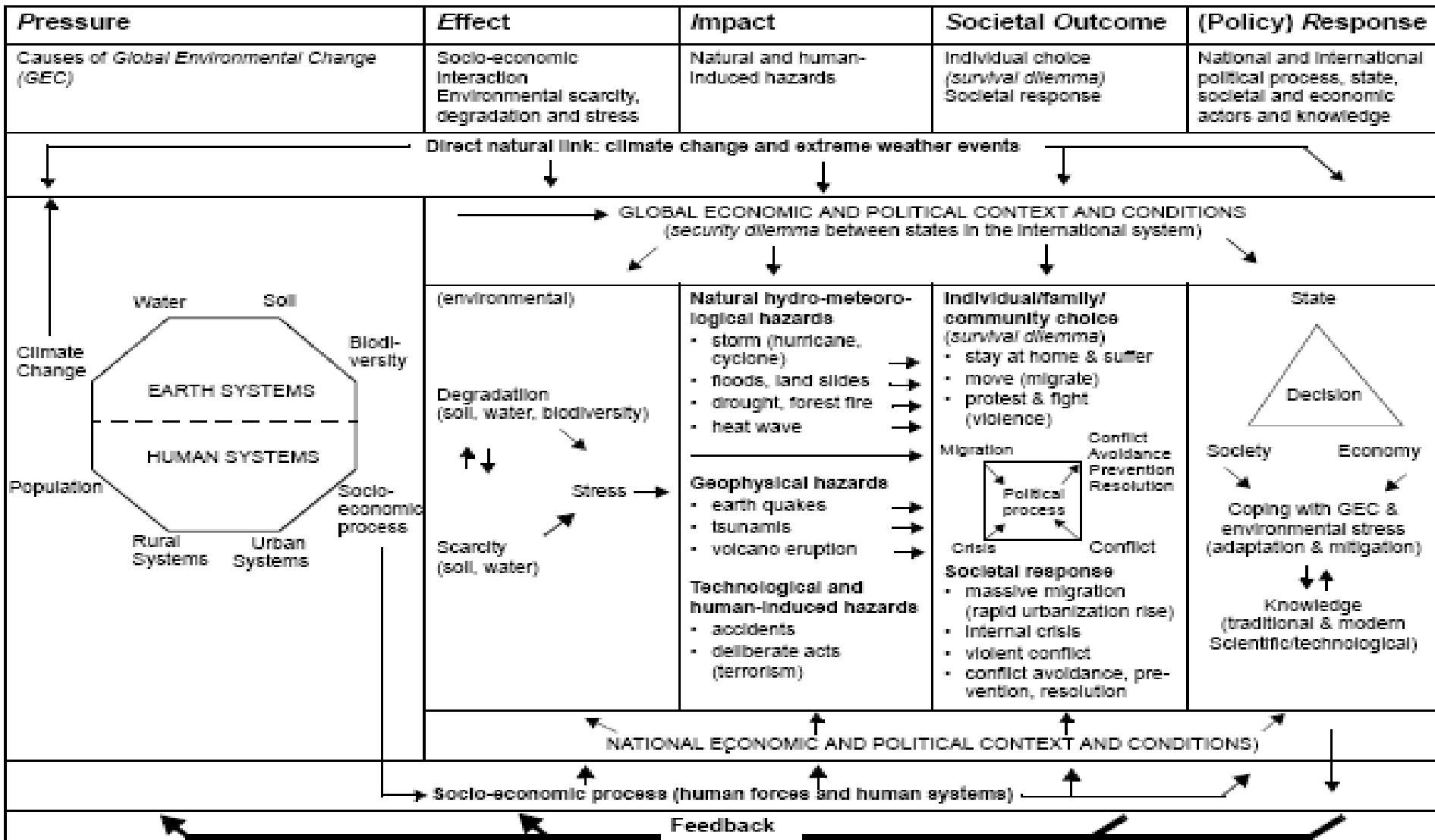
Objects of Security Analysis (Securitization)

- Physical Effects: e.g. temp, rise
- Impacts: Sectors
- Societal Effects

Whether they pose:

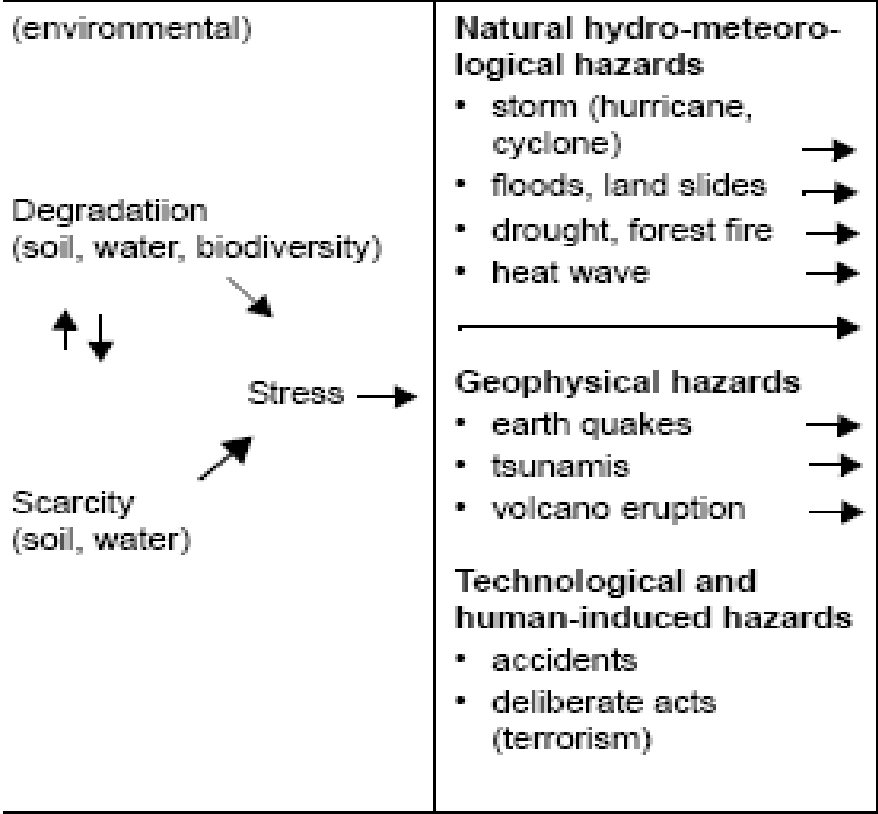
- Objective Security Dangers
- Subjective Security Concerns

7.1. Global Environmental Change & Impacts: PEISOR Model



Effect	Impact
Socio-economic interaction Environmental scarcity, degradation and stress	Natural and human-induced hazards

Direct natural link: climate change and extreme weather

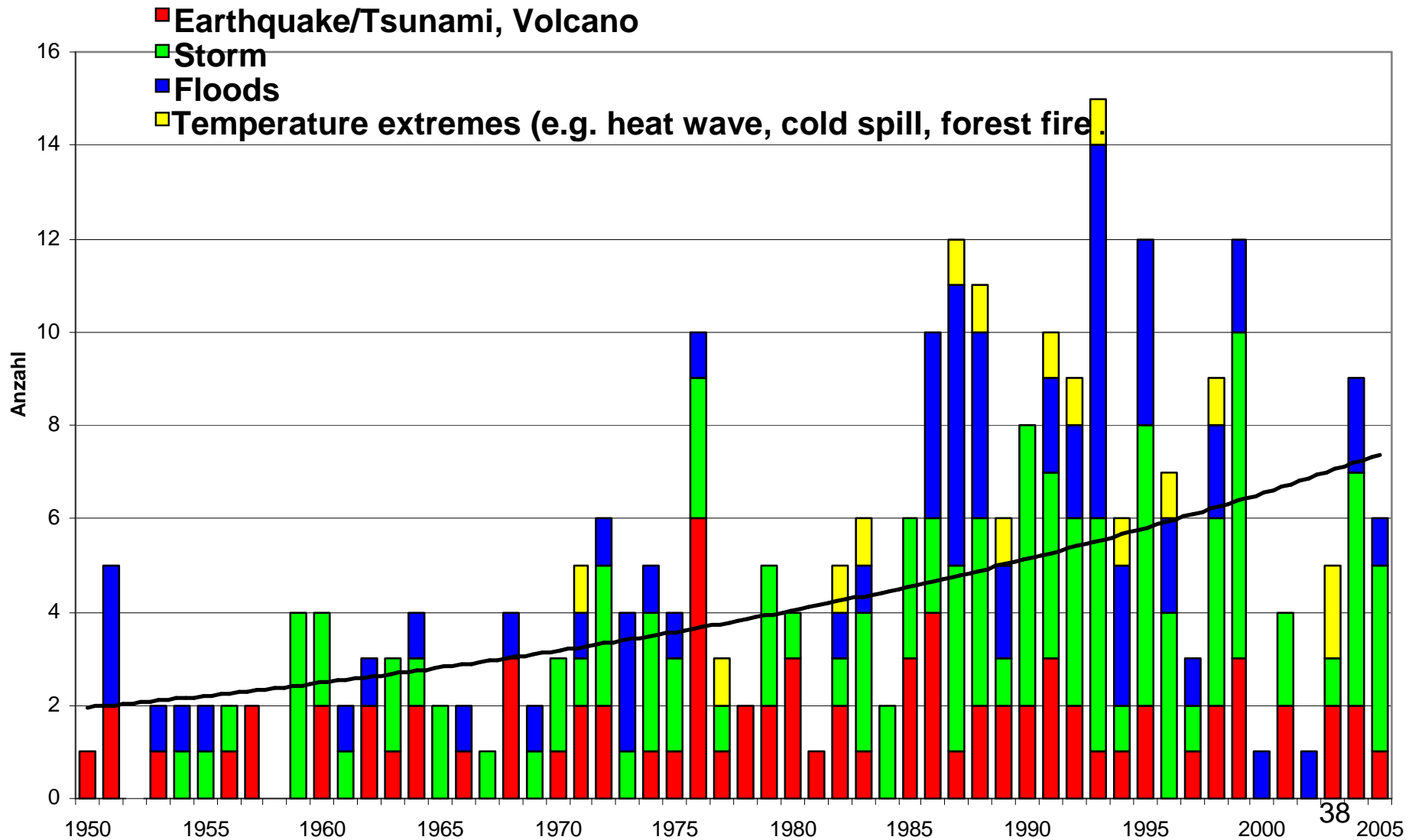


7.2. E: Effect & I: Impact

- **E: Environmental security debate of 1990s**
 - Toronto school
 - Swiss school (ENCOP):
 - **Soil scarcity > degradation > environmental stress**
- **I: climate change -> extreme weather events**
 - Hydrometeorological hazards
 - **Drought (wind erosion)**
 - Heatwaves
 - Forest fires
 - Storms (hurricanes)
 - **Flash floods & landslides (wind & water erosion)**

7.3. Global Impacts: Major Natural Disasters 1950 – 2005. Source: MunichRe, 2006

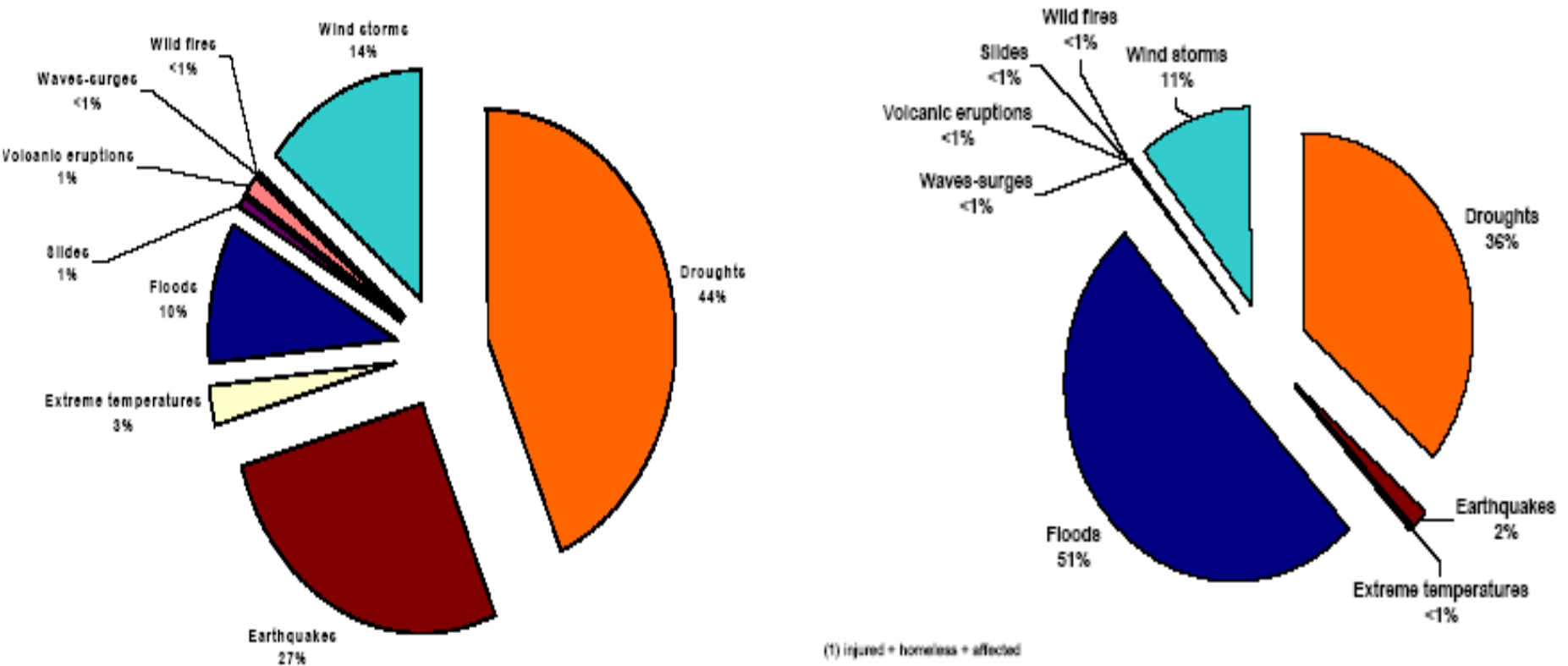
© 2006 NatCatSERVICE, GeoRisikoForschung, Münchener Rück



7.5. of Natural Hazards Globally (1974-2003):

Reported Death: 2.066.273 persons

Affected persons: 5 076 494 541 persons



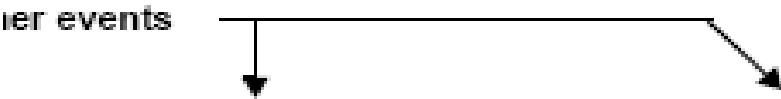
Source: © Hoyois und Guha-Sapir (2004)

7.6. A Silent Killer: Most severe droughts (1900-2008)

By the number of people killed on the country base			By the number of people affected on the country base		
Country	Date	Killed	Country	Date	Affected (million)
China P R.	1928	3,000,000	India	1982	300
Bangladesh	1943	1,900,000	India	2002	300
India	1942	1,500,000	India	1972	200
India	1965	1,500,000	India	1965	100
India	1900	1,250,000	India	Jun 82	100
Sov. Union	1921	1,200,000	China P. R.	Jun 94	82
China P R.	1920	500,000	China P. R.	April 2002	60
Ethiopia	May 83	300,000	India	April 2000	50
Sudan	April 83	150,000	China P. R.	June 1988	49
Ethiopia	Dec 73	100,000	China P. R.	Jan. 2003	48

Source: EM-DAT: The OFDA/CRED International Disaster Database, at: < www.em-dat.net > (created on 5 January 2009)

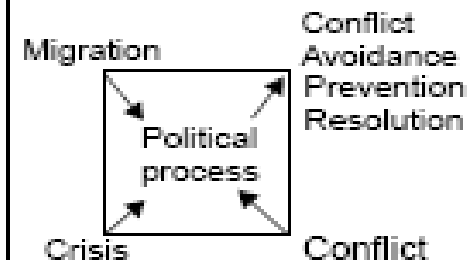
Societal Outcome	(Policy) Response
Individual choice (<i>survival dilemma</i>) Societal response	National and international political process, state, societal and economic actors and knowledge



POLITICAL CONTEXT AND CONDITIONS
(events in the international system)

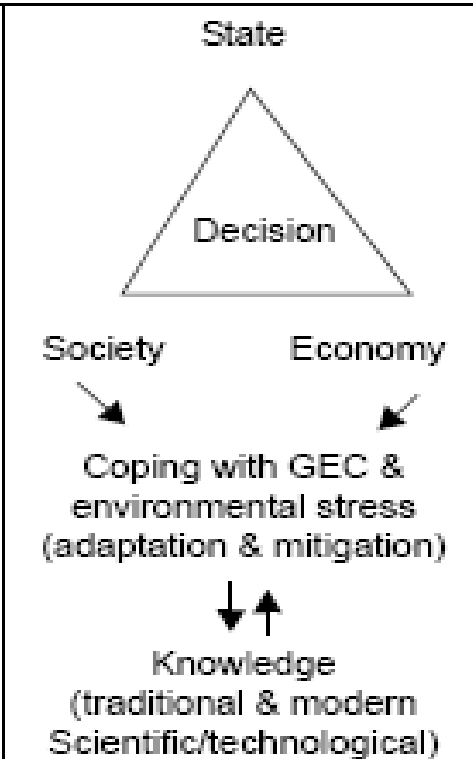
Individual/family/
community choice
(*survival dilemma*)

- stay at home & suffer
- move (migrate)
- protest & fight (violence)



Societal response

- massive migration (rapid urbanization rise)
- internal crisis
- violent conflict
- conflict avoidance, prevention, resolution



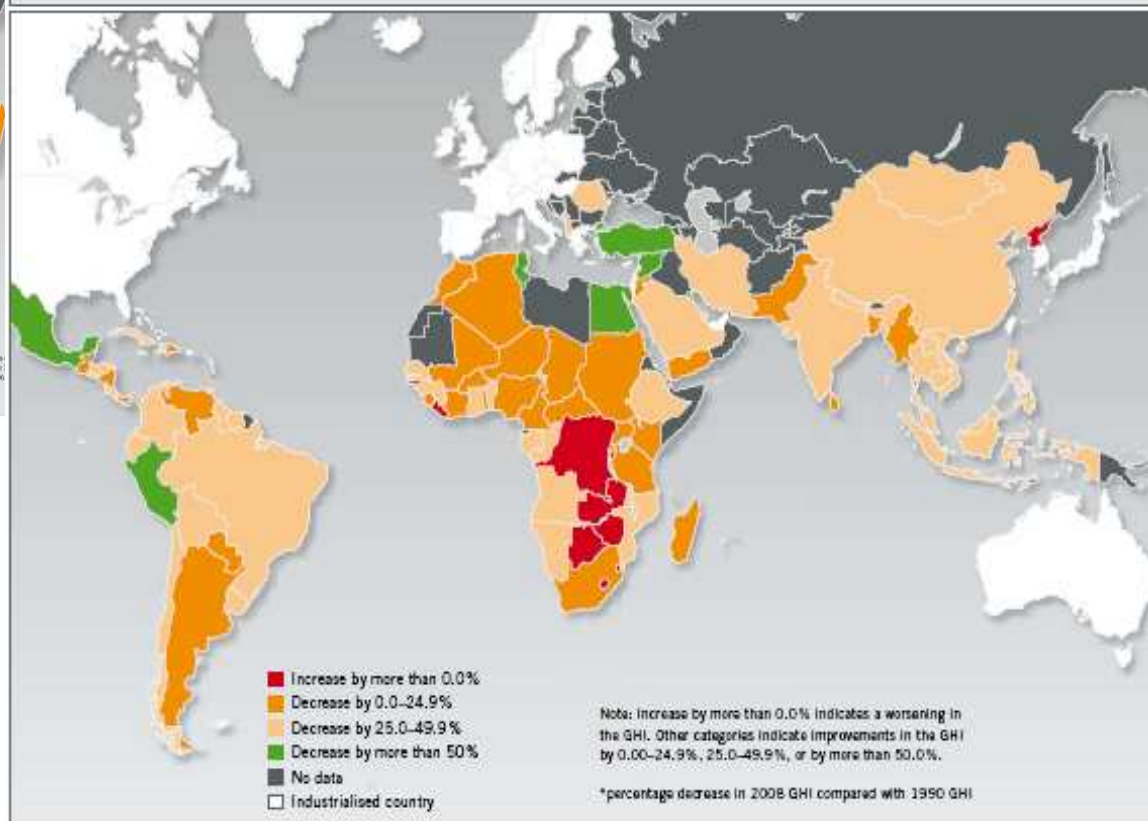
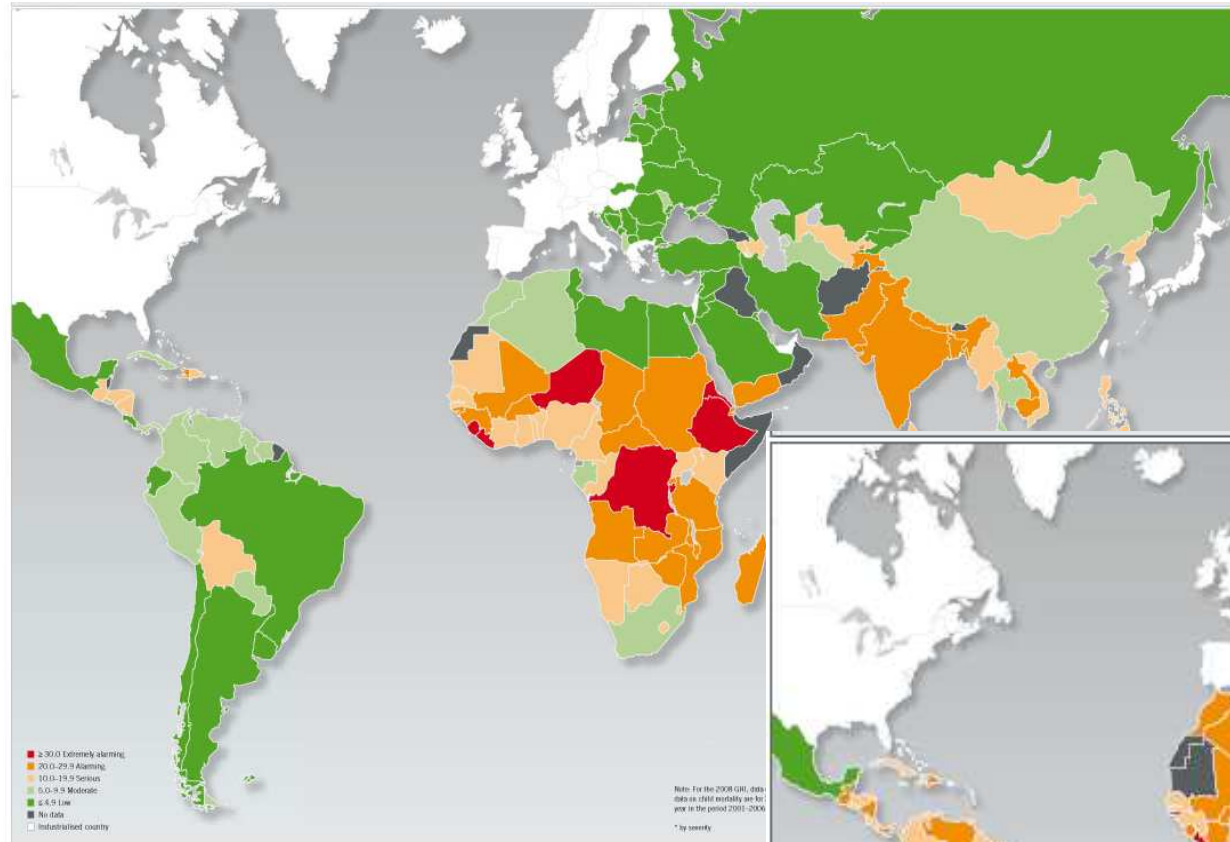
7.6. SO: Societal Outcomes

- Individual level (choice)
 - Human security perspective
 - **Survival dilemma of humans**
- State/society level
 - **Hunger**, famine
 - **Migration** to urban slums
 - Rural-rural migration
 - **Transborder migration**
 - Seasonal (labour, nomads)
 - Permanent
 - **Crises**: domestic
 - **Conflicts**:
 - Peaceful protests
 - Violent clashes
 - **Complex emergencies**

7.7. Global Hunger Index 1990 & 2008

← 2008 Global Hunger Index.

Country progress in reducing the Global Hunger Index between 1990 and 2008 ↓



Source: IFPRI, 2008

UNREST OVER FOOD

This map records some of the worst recent violence - where people died or large numbers protested - wholly or partly in response to rising food prices. Other, lesser outbreaks occurred in West Africa. Even Wal-Mart in the United States rationed rice and Italian consumers protested over the price of pasta.

MEXICO
Jan 2007: 75,000 protest against a 400% rise in tortilla prices.

HONDURAS
Apr 2008: Thousands of activists, students and farmers block highways and rally against high food prices and free trade.

PERU
Feb 2008: Farmers strike. May 2008: 1,000 women hang pots outside Congress. Jul 2008: One-day national strike.

HAITI
Apr 2008: Food price riots leave 4 dead. Prime minister sacked. Aug 2008: More violence erupts.

MOROCCO
300 injured in bread protests.

SENEGAL
Apr 2008: 1,000 march; many with empty rice sacks.

GUINEA
Jan 2007: 130 killed in 18-day national strike.

ARGENTINA
Mar-Apr 2008: 3-week farmers' strike over new export taxes on soya and other products.

SOUTH AFRICA
Aug 2008: National day of protest and strikes. 25,000 march through Johannesburg.

MAURITANIA
Nov. 2007: 1 killed in riots. May 2008: More violence; president sacks govt over slow response. Aug 2008: Coup ousts president.

EGYPT
Apr 2008: 2 die in major bread riots; army is ordered to start baking bread.

CAMEROON
Feb 2008: Riots leave 24 dead.

YEMEN
Sep 2007: Tanks called in, 4 killed, in 5-day riots over wheat prices.

SOMALIA
May 2008: 10s of 1,000s protest at doubling of food prices; 2 killed.

MOZAMBIQUE
Feb 2007: 6 killed in food and fuel protests.

UZBEKISTAN
Sep 2007: Food protests erupt in the capital, Tashkent, and the Fergana region.

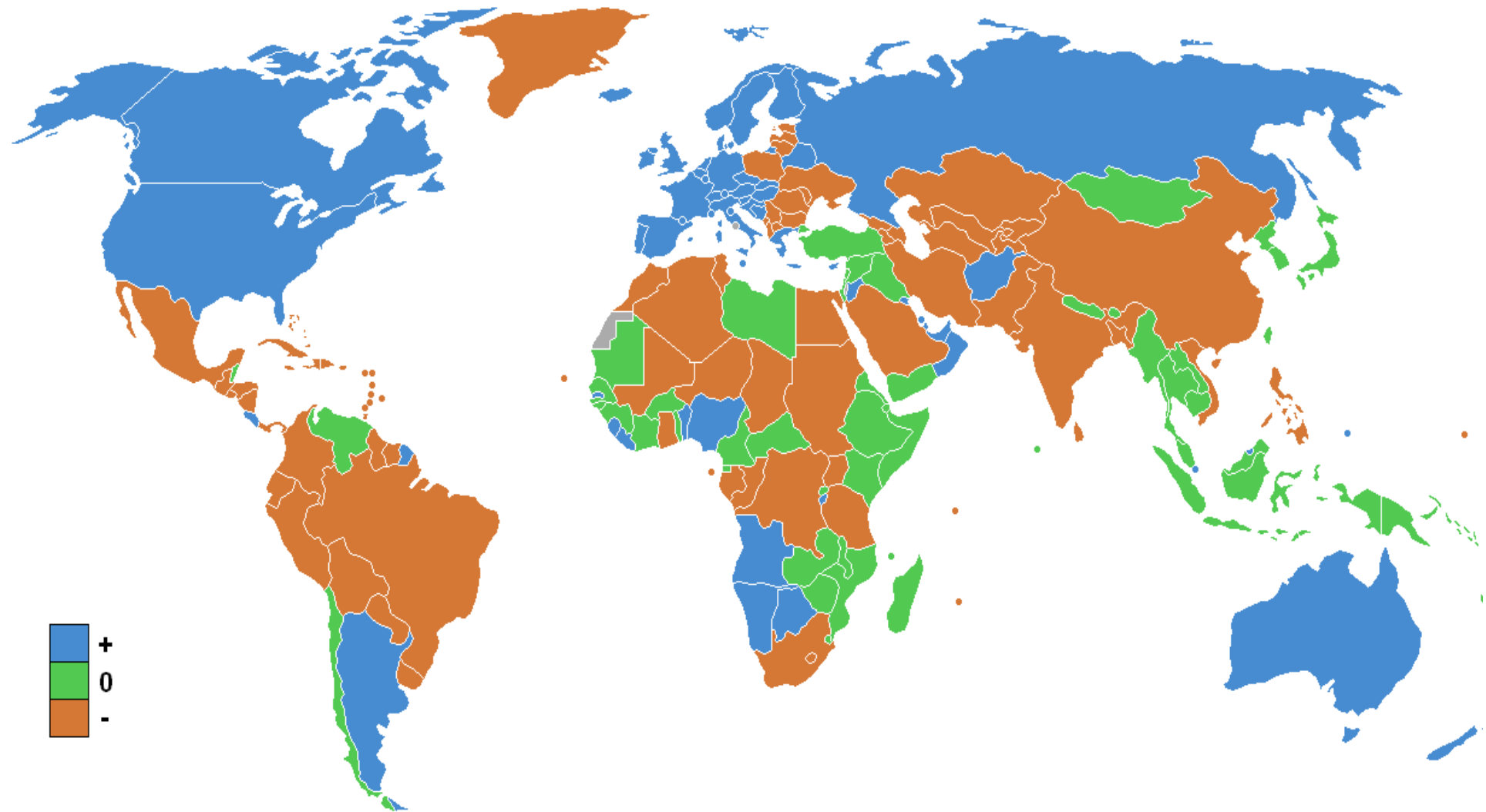
INDIA
Sep 2007: At least 6 die in mob attacks on West Bengali rice sellers in rationing protests. Aug 2008: Food riots follow flooding in eastern India.

BANGLADESH
Apr 2008: 20,000 textile workers riot over wages and food prices.

INDONESIA
Jan 2008: 3,000 rally in Jakarta to demand action on soybean price, which doubled in a year.

Sources: Al Jazeera, Antara News, AP, BBC, Bloomberg, Institute for War and Peace Reporting, International Business Times (India), New York Times, Reuters, The Times (South Africa)

7.9. Global net migration



positive (blue), negative (orange). **Source:** Wikipedia, 2009

7.10. Migration currents

Distance no object

Some of the world's more important current migration routes

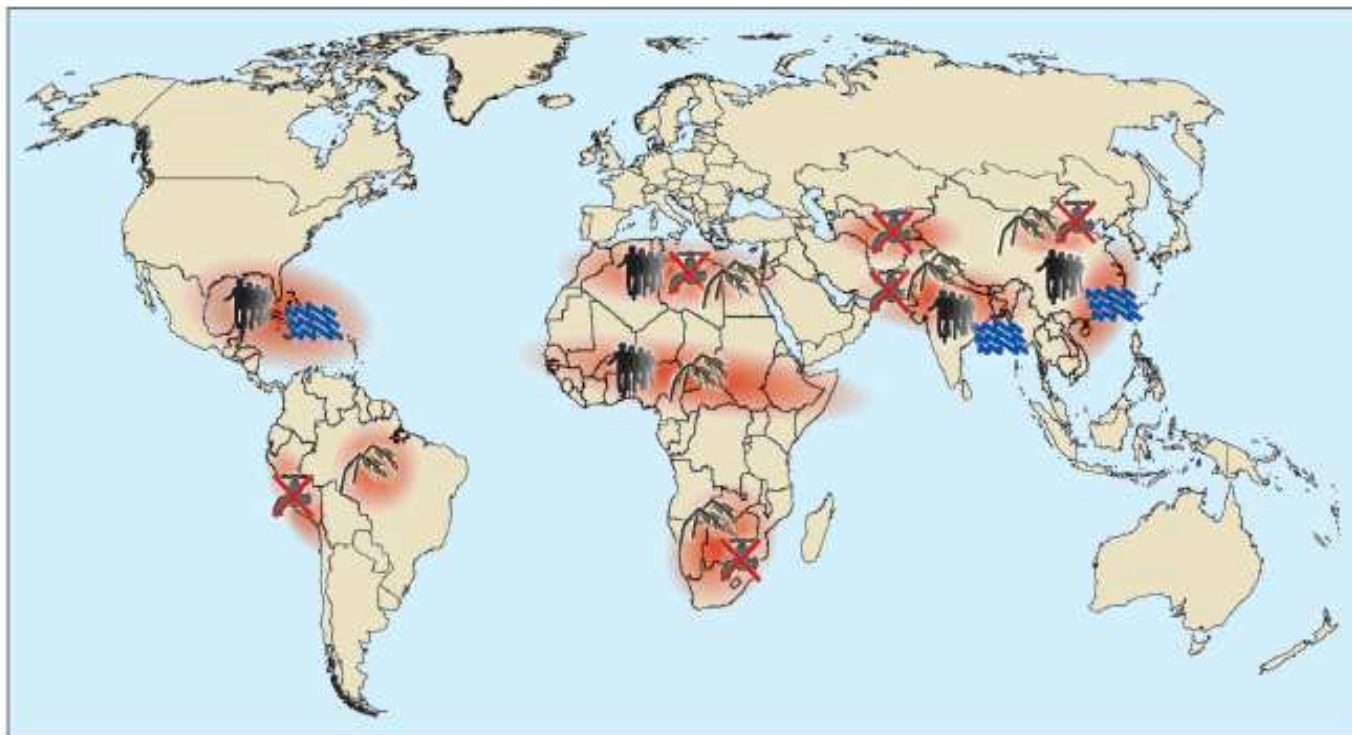


Sources: National Public Radio;
The Economist

Source: <<http://www.economist.com/images/20080105/CSR900.gif>>

7.11. WBGU-study: Climate 'Hotspots': 4 Conflict Scenarios

Figure 4.7: Regional hotspots and security risks associated with climate change. Source: WBGU (2008: 4). Reprinted with permission.



Conflict constellations in selected hotspots



Climate-induced degradation of freshwater resources



Climate-induced decline in food production



Hotspot



Climate-induced increase in storm and flood disasters



Environmentally-induced migration

- **Mediterranean**
 - Water
 - Food product.
 - **Migration**
- **South, Central and East Asia**
 - Water
 - Food product.
 - **Migration**
 - cyclone
- **Latin America & Caribbean**
 Wasser
 - Water
 - Food product.
 - **Migration**
 - hurricanes

7.12. R Policy Response to Security

Danger posed by Global Change

- **How? Responsive vs. proactive action**
 - **Reponse:** cost of non-action (Stern Report)
 - **Proactive:** anticipatory knowledge, learning, action
- **What? Addressing causes (**Pressure**)**
 - **Earth system:** environmental quartett
 - **Human:** productive/consumptive behaviour
- **Responding to **Effects & Impacts****
 - **Environmental stress**
 - **Climate-related natural hazards**
- **Addressing **Societal Outcomes:****
Migration/Conflicts

8. Change in Earth History

Securitization of Climate Change

- Since 1994 a major shift occurred from state-centred **(inter)national** to the **human security concepts** that is widely used in policy declarations in the UN system.
- **Theory of securitization** was used for global security mapping of speech acts by policy makers (governments)
- Results of securitization of climate change are mixed:
 - Climate change was declared a **threat of utmost importance**: it was securitized by policy makers
 - But **no extraordinary measures** were launched to cope with the impacts of GEC and global climate change
 - Many **policy makers have too easily become victims of the structural terrorism** of the global banking crisis
 - Dominance: short-termism & interest dependence: bailout of financial sector; **lack of political will & readiness** to address security impacts of climate change

8.1. Climate Change & Security: Challenges for a New Security Policy in the Anthropocene

- **New security challenges require new security & peace policy for the Anthropocene**
- **We are the threat! Impossible to fight war against oneself**
 - **threat:** our fossil energy consumption and way of life
 - **solution: GHG reduction by 2050: -50% (global), -80% OECD**
 - Electricity, heating, transportation, industry
 - Increase in energy efficiency and renewable energy
 - **Global responsibility and global action**
 - **Proactive vs. reactive policy and crisis management**
 - **Reactive: World financial crisis: no price is too high**
 - **Short term horizon of political & economic action of policy-makers and electorate**
 - **Long-term perspective and proactive strategy requires to overcome dominant view: we cannot afford drastic measures**

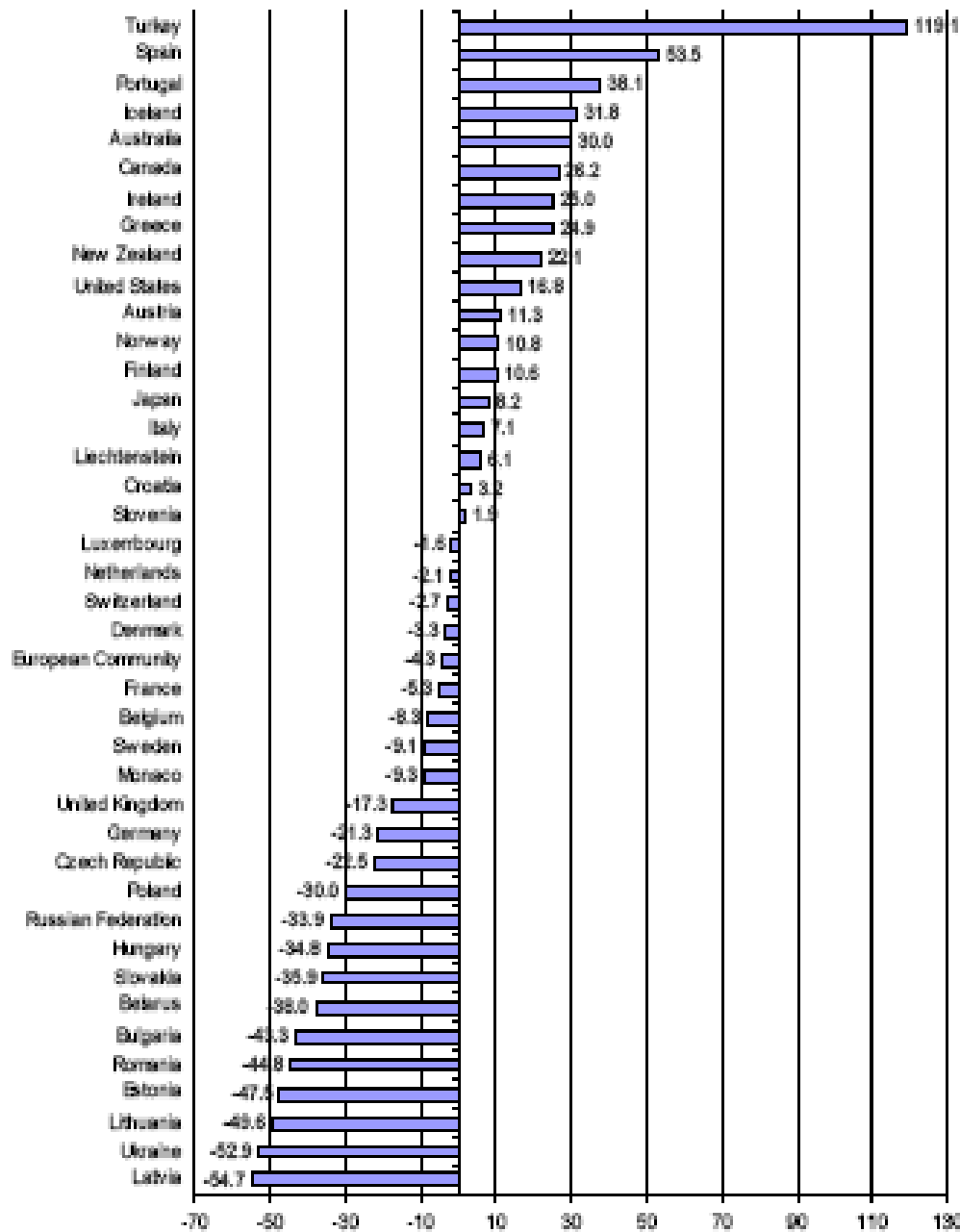
8.2. Policy Constraints & Obstacles: Old Worldviews & Mindsets: Security Agenda

- **Old Security Agenda** depends on **Hobbesian Cold War** mindset and institutional interest & traditional knowledge
- **Dominance of old worldviews**
 - **Hobbesian worldview** on security (obsession with power)
 - Strategies of **business as usual** on climate change and hope for **cornucopian technical fixes & military containment, economic power**
- **Old Agenda of Cold War: military and arms control agenda**
 - **Non-proliferation: nuclear, biological, chemical, missiles/drones**
 - Change: Nuclear disarmament: Obama and Medvedevs' turn (2009)
 - Continuity: Missile Defence: A system in search of legitimization
 - **Arms trade: Jobs. Profits and Dominance of the Free Market**
 - Legacies of the End of the Cold War: Petrodollar recycling in the Gulf
 - 1977: CATT, Small arms efforts of the UN
 - Weapons law and the fuelling of the Narco Gangs in Mexico
- **New Agenda requires a shift in mindset and worldview & new realistic policy visions and long-term strategies**

8.3. Long-term Commitments vs. Short-term Policy Failure

- **Commitment of the G-8: Heiligendamm: 50 % reduction of GHG by 2050, or 80% for OECD**
 - **This requires in 40 years a fundamental change of the economy and society and of international relations and politics**
- **Goal of UN Framework Convention on Climate Change (UNFCCC, 1992), Kyoto Protocol (KP, '97)**
 - UNFCCC: stabilization of GHG emissions
 - KP: global GHG emission reduction of 5.1% by 2012 rel. to 1990
- **Achievements: Policy implementation gap (figure)**
- **Copenhagen: COP 15 of UNFCCC, Dec. 2009**
 - EU by 2020: -20% emissions, 20% renewables, 20% efficiency
 - US (Obama): - 17% (2005) -7% (1990) not approved by Congress
 - China: no legal commitment, but energy efficiency, renewables
- **New Security Agenda: Nonmilitary agenda for a sustainability transition & sustainable peace**

Changes in GHG emissions excluding LULUCF (%)



8.4. GHG Reduction Implementation UNFCCC: (21.10.2009) National Greenhouse Gas Inventory Data (1990-2007) for Annex I parties (with reduction obligations) ⁵²

9. New Peace & Security Agenda for the Anthropocene

For the transition to the Anthropocene Era of Earth History we need for the 21st century

- A Copernican Revolution in thinking for sustainability
- A Fourth Sustainable Green Revolution
- A Strategy for a sustainability transition
- New Nonmilitary Security Agenda
- New realistic conceptual visions as guidelines for action
 - **Vision of a sustainability transition**
 - **Vision of a decarbonization of the economy**
 - **Vision of efficiency revolution**
 - **Vision of an energetic imperative**

9.1. Copernican Revolution in Thinking Fourth Sustainable and Green Revolution in Action

We face two alternative strategies & visions

- **Hobbesian obsession & business as usual (1990-2010)**
- **A revolution in thinking and action for sustainability**
 - **Clark/Crutzen/Schellnhuber (2004/2005). Copernican revolution towards sustainability: fundamental paradigm shift (Kuhn 1962)**
 - **Action Goals: A fourth sustainable and green revolution**
 - **Strategy: Transition towards Sustainability**

Transition to fourth peaceful revolution (Anthropocene)

- **First Revolution: Agricultural: collectors to farmers**
- **Second Revolution: Industrial (1750)**
- **Third Revolution: Communication (after WW II)**
- **Fourth Revolution: Sustainable Green Revolution**

9.2. Policy Vision & Perspective:

Towards Sustainable Peace & Fourth Green Revolution

- **Goal: stabilization of temperature increase at 2°C in global average temperature by 2100:**
 - -50% global reduction of GHG, or 80% for OECD countries
 - Major transformation and decarbonization of the economy
- **Combination of sustainable development strategy & peace policy: sustainable peace to prevent that GEC issues pose a threat to international peace.**
- **Fundamental transformation & demilitarization of security is needed not a militarization of the environment, as we are the threat & solution.**

10. Global Human and Environmental Security Handbook for the Anthropocene

To advance these aims in the scientific discourse is a goal of a book series published by Springer

- Hexagon Book Series on Human and Environmental Security and PEACE (HESP)

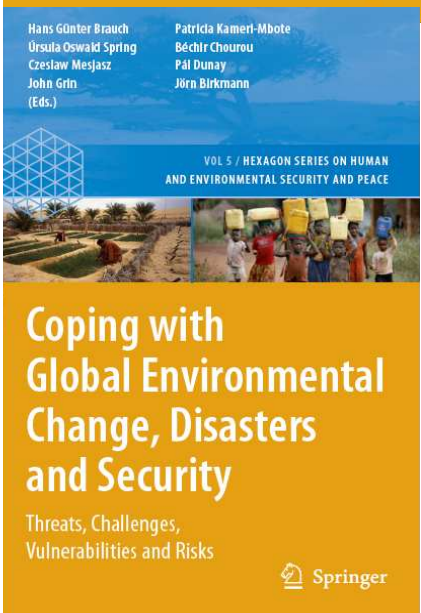
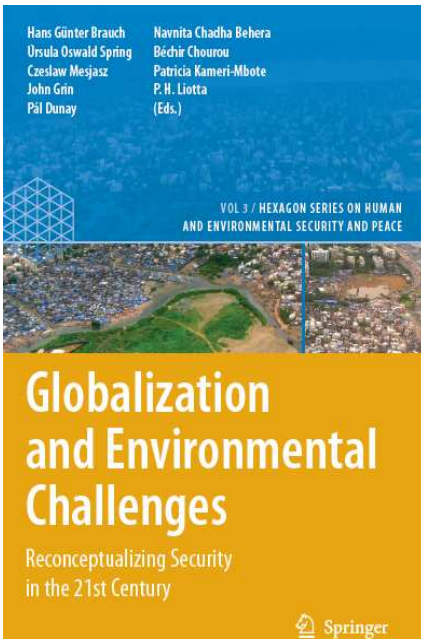
<<http://www.afes-press-books.de/html/hexagon.htm>>

- Global Environmental and Human Security Handbook for the Anthropocene (GEHSHA)
 - Globalization and Environmental Challenges (2008)
 - Facing Global Environmental Change (2009)
 - Coping with Global Environmental Change (2011)contains 270 peer reviewed chapters by 300 scientific authors and policy-makers from 100 countries

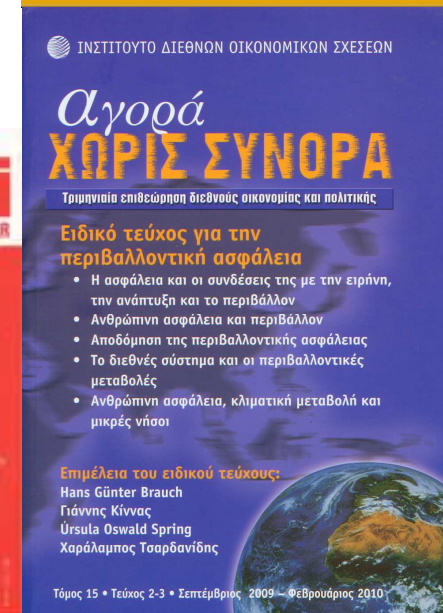
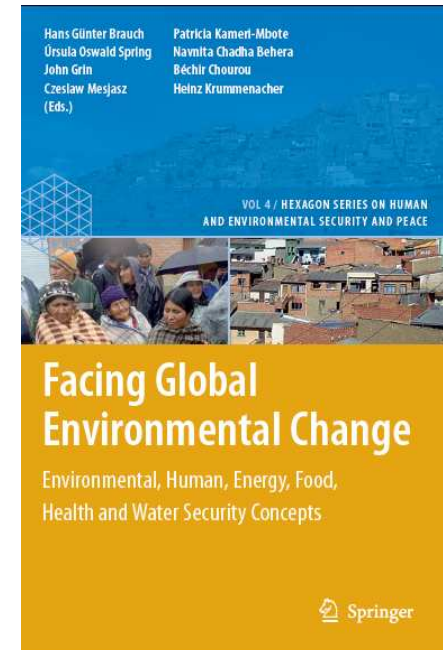
10.1. Environmental Security Handbook

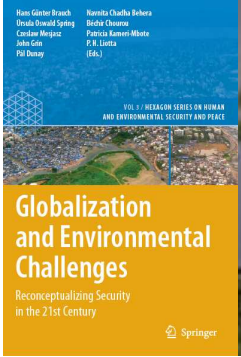
GEHSHA

- I. Globalization and Environmental Challenges:** 92 authors, 36 countries, 16 disciplines, former vice presidents, ministers, generals, diplomats (2008)
- II. Facing Global Environmental Change:** 132 authors, 49 countries on global debate and problems of environmental, human, energy, food, health, water security (2009)
- III. Coping with Global Environmental Change Disasters and Security – Threats, Challenges, Vulnerabilities and Risks (2011)**



Spanish
Turkish
Greek
Editions





10.2. Bookaid Project for Third World University Libraries



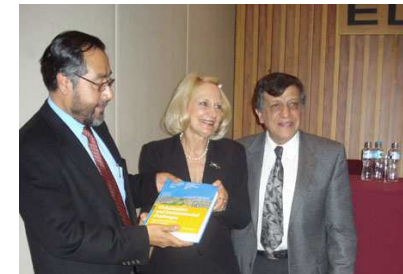
Prof. Dr. Klaus Töpfer, former Execut. Director, UNEP (1997-2006)

- “This book deserves many readers in all parts of the world, especially in those countries where university and research libraries may not be able to afford such references books.”

Achim Steiner, Exec. Director, UNEP

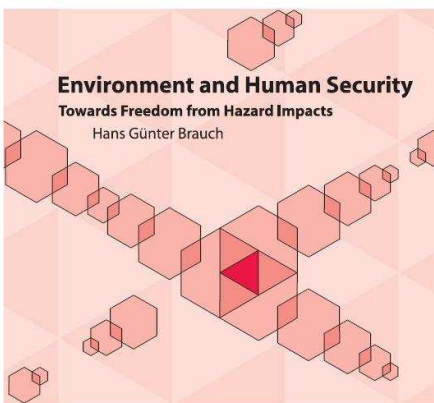
- I hope that private foundations and donors can ensure that its important ideas, debates and essential reading find their way equally onto the library book shelves of the South as well as the nations of the North.

Transfer of book gifts to the University of Nairobi, Kenya; El Colegio de Mexico, Kofi Annan Centre, Accra, Gov. Singh, Rajasthan in Jaipur, Chancellor Univ. Rajasthan PM of Guyana



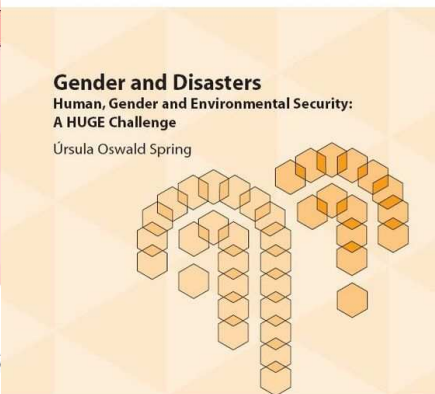
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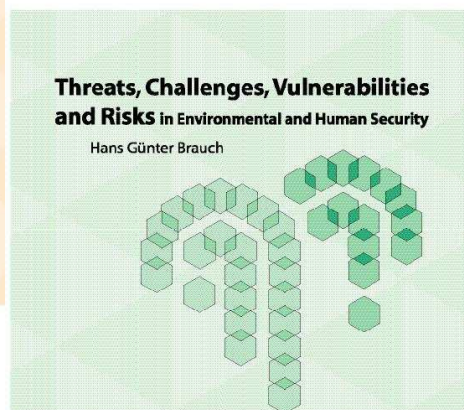
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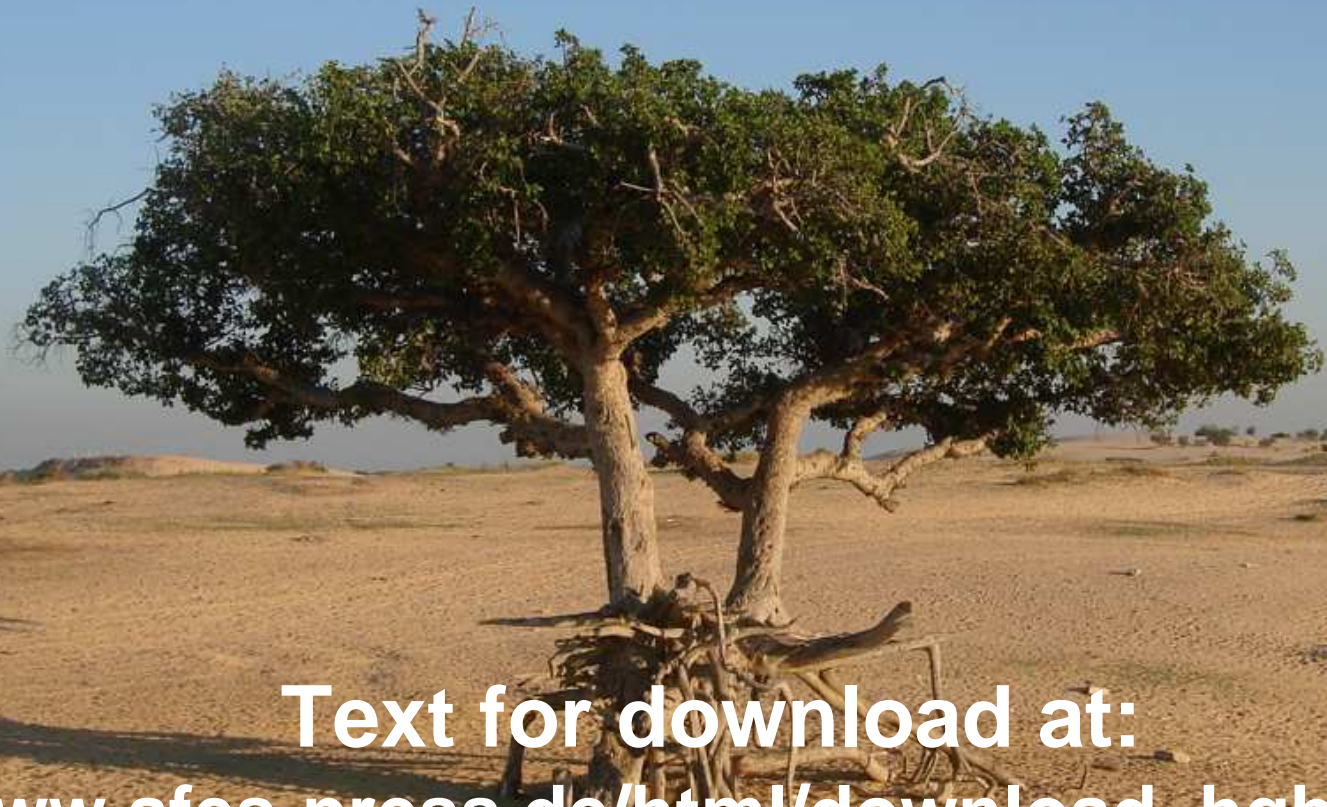


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