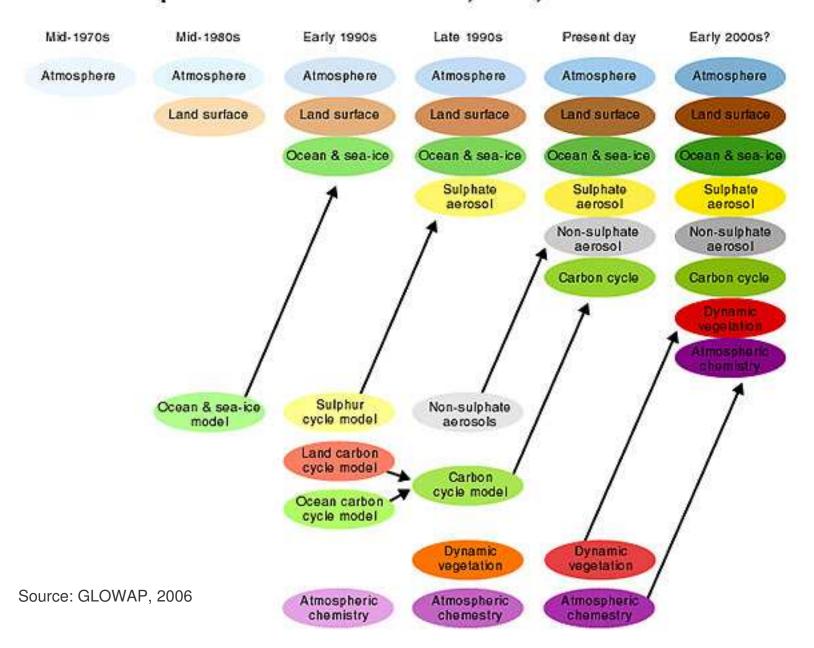


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- 1. Global environmental change and globalization
- 2. Climate change and its implications on security
- 3. Gender vulnerability
 - Gender identity
 - Social representations
 - Risks, vulnerabilities and challenges
- 4. Widened and deepened security approach
- 5. Human, gender and environmental security: a HUGE alternative
- 6. Conclusions

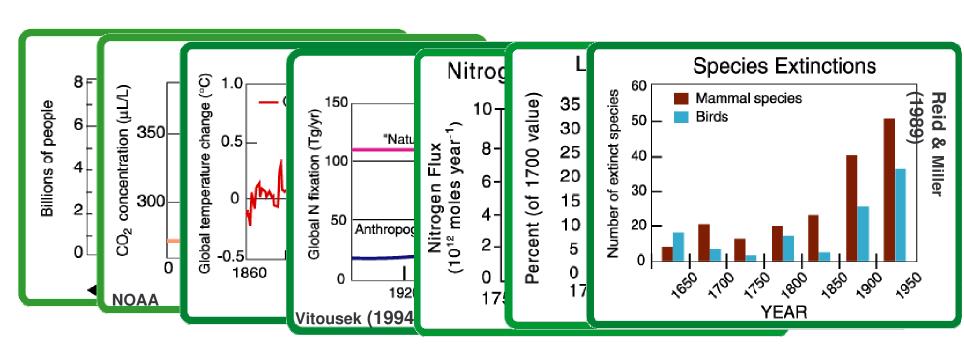


The Development of Climate models, Past, Present and Future



What is Global Environmental Change?

- GEC is more than climate change
- Includes natural **plus** human components
- It is a constelation of changes in different spheres, such as:



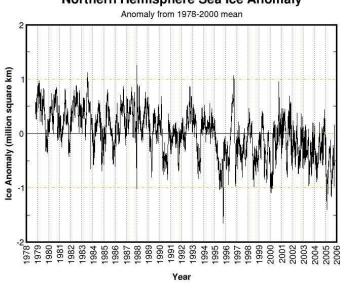
Characteristics of GEC

- 1. Extreme temperatures: warmer and colder
- 2. Climate change
- 3. Desertification and erosion
- 4. Increase of sea level
- 5. Hydro-meteorological disasters with greater frequency and higher impact
- 6. Erosion and loss of biodiversity and ecosystems
- 7. Urbanization with slum development
- 8. Poverty and social inequality
- 9. Migration and environmental refugees
- 10. New plagues and illnesses (avian flue, Ebola)



Permafrost and Glaciers

Northern Hemisphere Sea Ice Anomaly



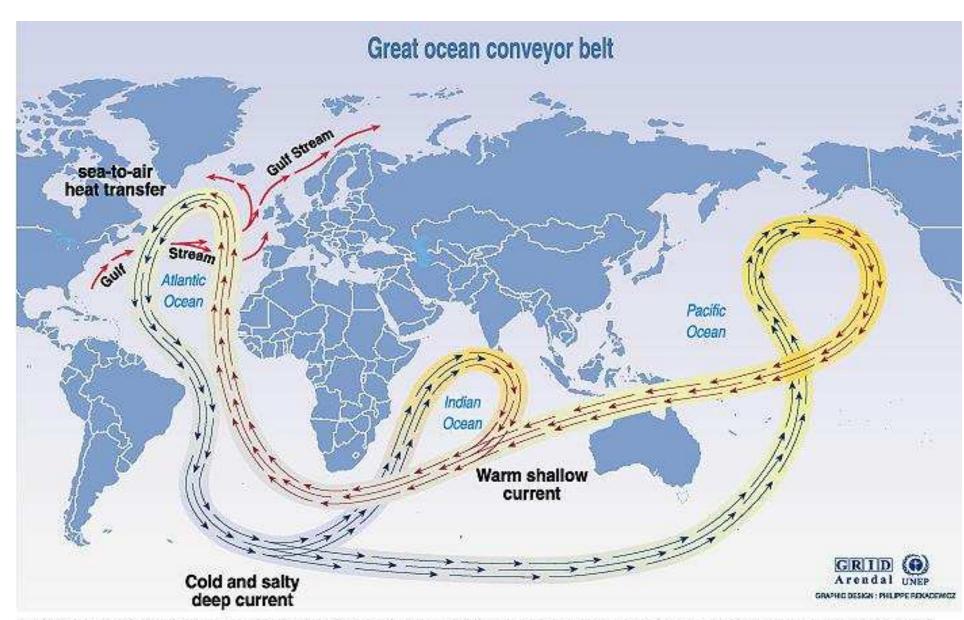


Larsen B



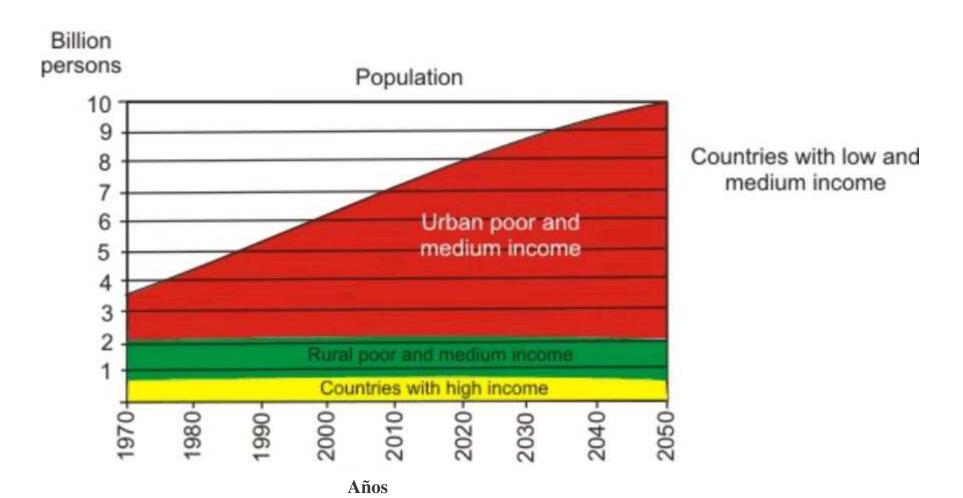


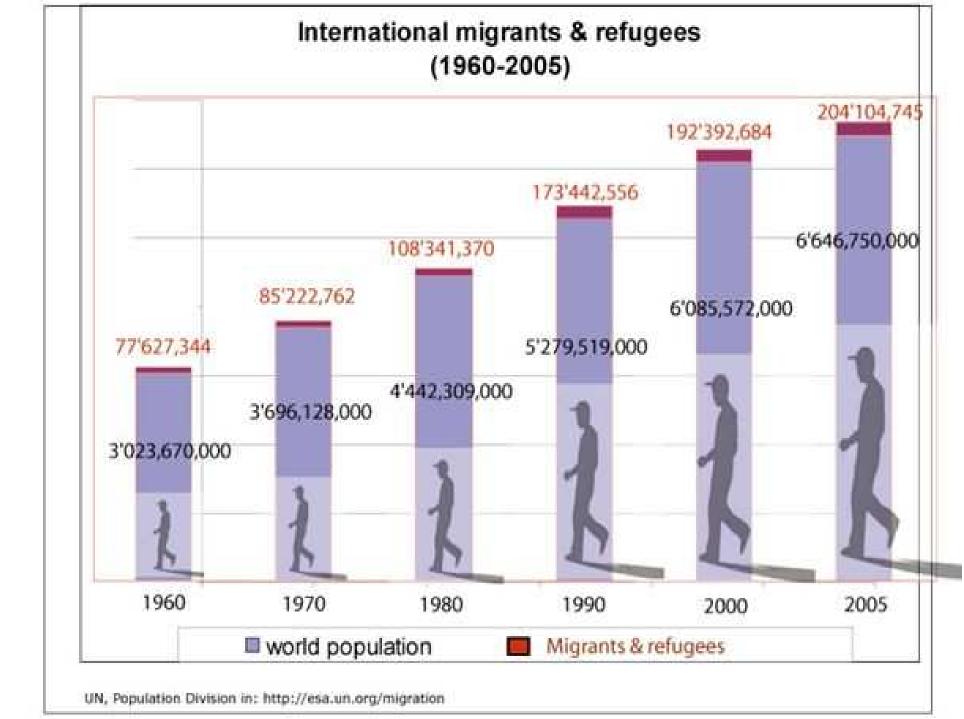
Chacaltaya (1996 y 2004)



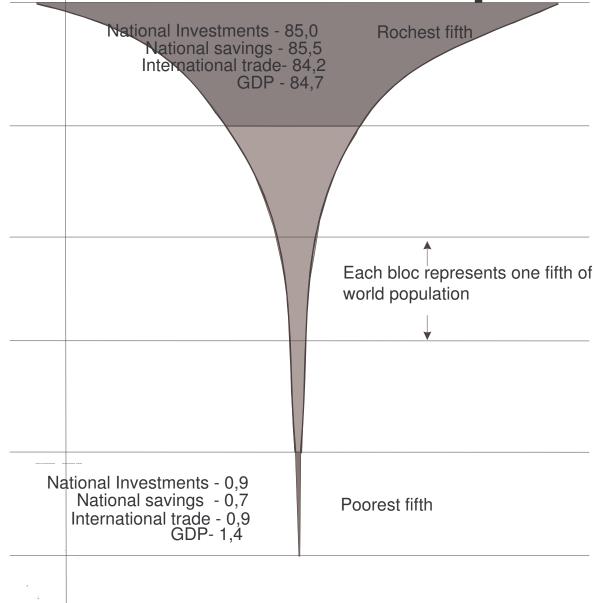
Source: Broecker, 1991, in Climate change 1995, Impacts, adaptations and mitigation of climate change: scientific-technical analyses, contribution of working group 2 to the second assessment report of the intergovernmental panel on climate change, UNEP and WMO, Cambridge press university, 1996.

Proyection of population and urbanization

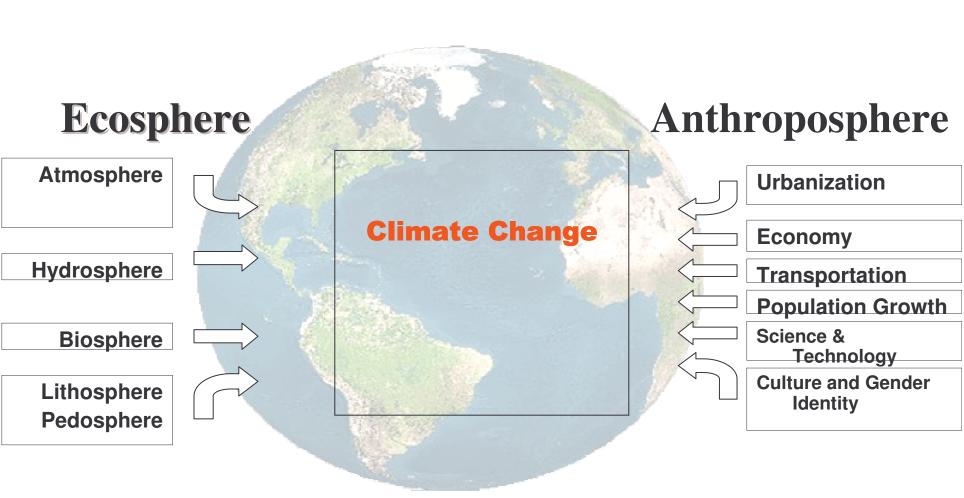




Globalization with Unequal Development

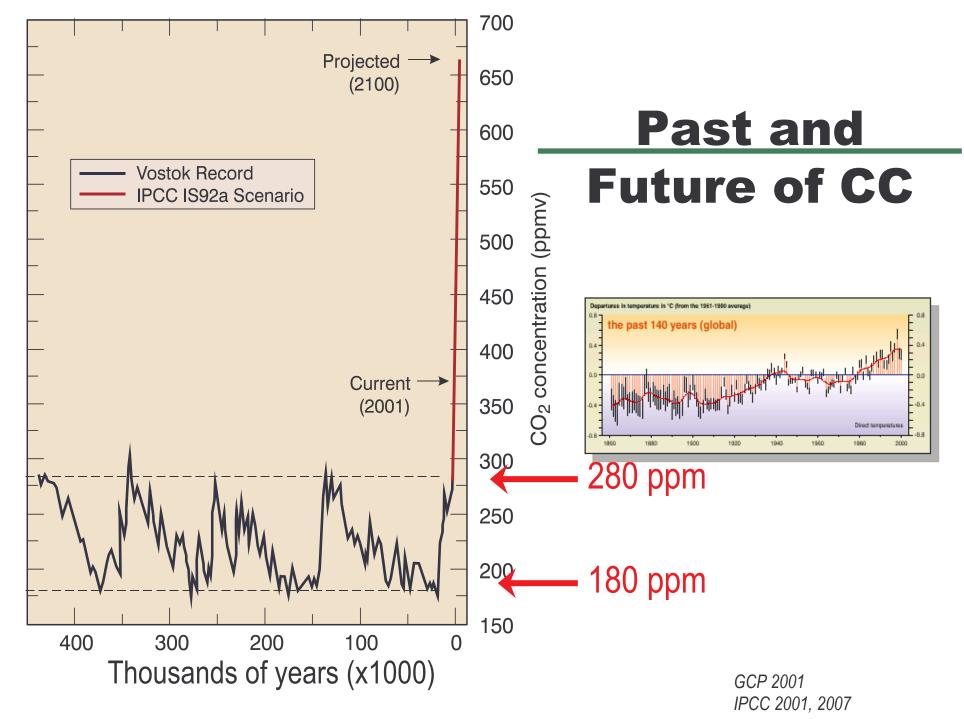


Climate Change (CC) and its Implication on Security

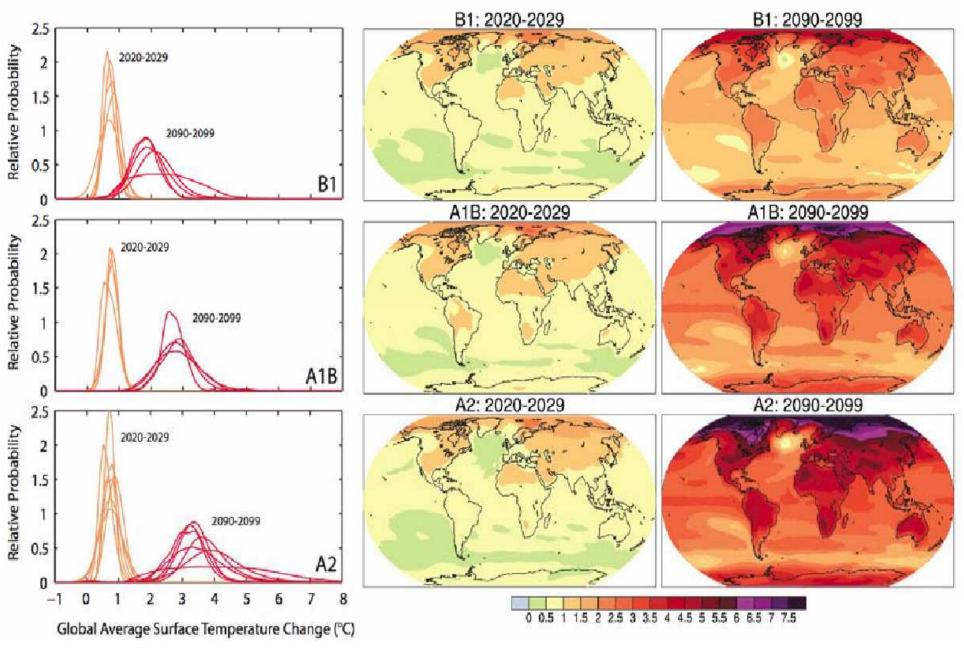


Direct outcomes of Climate Change

- 1. Increase in temperature; heat and cold waves
- 2. Rise in sea levels
- 3. Storms and floods
- 4. Desertification and loss of soil fertility and erosion
- 5. Irreversible ecological changes and destruction of ecosystems
- 6. Effects on livelihood, food production, water security and life quality
- 7. Increase in migration from poor countries
- 8. Possible hotspot conflict-zones
- 9. Possible large-scale changes (Amazon, Gulf Stream, depleted Asian monsoons, etc.)

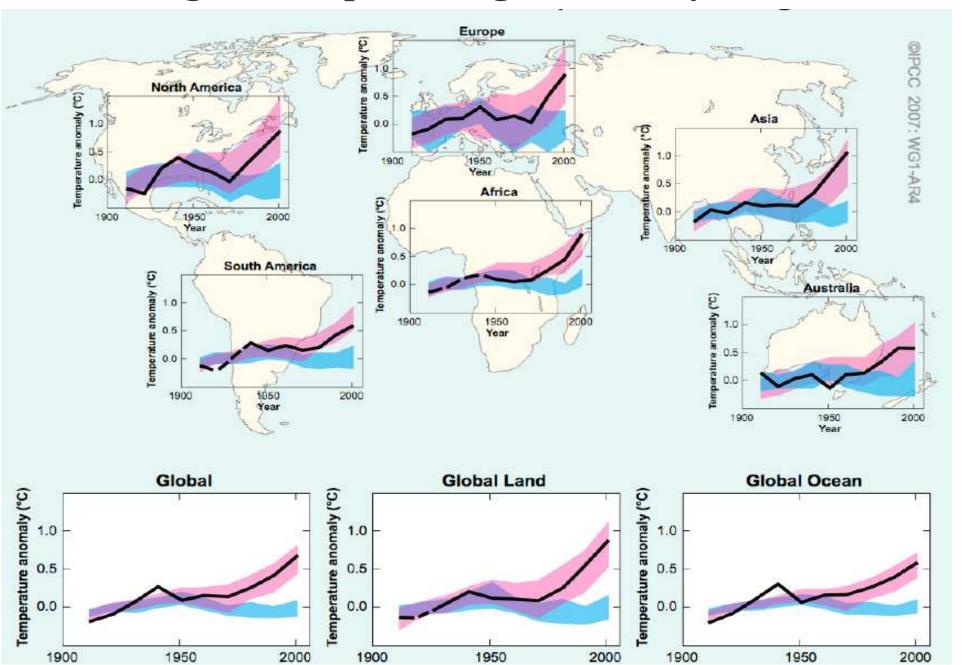


AOGCM Projections of Surface Temperatures



Source: Summary 4th IPCC, 2007

Changes in temperature global and by continent



Threats, Disasters and Social Vulnerability





CC and State Security

Impact of Agent Orange in Vietnam

1. Degradation cycle:

- CC causes crises and conflicts (disasters, pollution, scarcity and abundance of resources)
- Conflicts cause environmental damage
- 2. Disasters can induce different outcomes:
 - **Peace agreement** in Aceh; greater intensity of conflict among Singhalese-led government and Tamil rebels (aid distribution, control of resettlements)



Burning oil fields in Kuwait, 1991



Main Attributes of Social Identity

 Thousands of years of experience have created a society in a specific socio-historic environment where symbolic elements have developed (class, ethnicity, age, religion, race, nationality). They are in permanent change, but its main attributes -gender, sex and race- and the socioeconomic conditions -rich, poor- are stable. Each process of classification implies relations of identity; inclusion or rejection and exclusion, what constitutes the basis of any power exercise, discrimination and violence.

Obstacles: Social Vulnerability

- Social vulnerability is an historical and accumulative result of poverty and unequal access to material and cultural consumption and power.
- Increase susceptibility of a community or person confronted with hazard impacts.
- Poor women, heads of single household are at greater risks: poverty has women's face.
- Hazard impacts **can empower** affected people and prepare them to cope with disasters and new risks.

Social Representations

- "Systems of values, ideas and practices" create a system of order that is able to offer a person the possibility to get familiar with the social and material world.
- Communication within a community offers a code of common social interchange, where several aspects of life, personal and collective history are classified without ambiguity (Moscovici, 1976: xiii).
- Social representations originate in daily life, where society is the thinking and acting system.
- The theory of social identity establishes a continuum between personal and social identity with a *processual*, relational, multidimensional, contextual and essentialist character.



Pillars of Human Security

- Freedom from fear (political, criminal violence: Canadian approach; Human Security Report, UNESCO, HS Network)
- 2. Freedom from want (poverty, justice, governance, systems of rule: Japanese approach; UNDP 1994; CHS 2003: Ogata/Sen: Human Security Now)
- 3. Freedom to live with dignity (UNO, Kofi Annan: In Larger Freedom)
- 4. Freedom from hazard impacts (reducing vulnerability, enhancing coping capabilities from natural and human-induced hazards; Bogardi/Brauch; Brauch)



Impact on Environmental Security

1. "Development that meets the needs of the present generation without compromising the ability of **future generations** to meet their own needs"

(Brundtland Comission)

2. Disasters confront the vulnerable with a survival dilemma





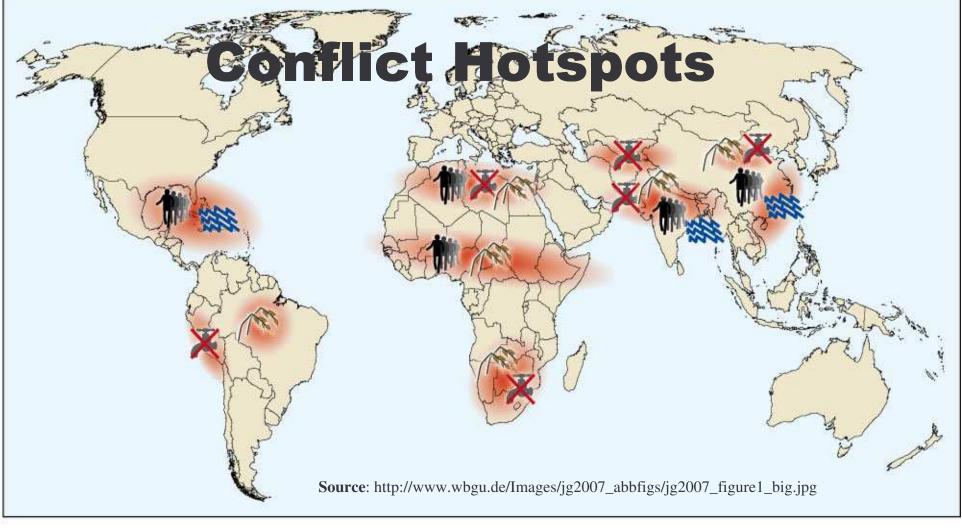


Gender Vulnerability

In Indian Ocean tsunami, the Pakistan earthquake and Bangladesh flood the rate of women dead was 68-80%.

Reasons:

- 1. External: women could not swim, wore sari, had long hair and worked mostly inside their homes.
- 2. Gender identity: explains how a society identifies women as careers and how women self-identify to this role and loose their life to safe others, inclusive domestic animals.



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



Human Gender and Environmental Security (HUGE)

National unity, identity,

governance, tolerance,

Survival, quality of life,

Sustainability, industri-

alization, consumption,

modernization, future

livelihood, equality,

cosmovision

development

development,

Equity, equality,

culture, and

cosmovision

identity, solidarity,

social representations,

Nations, migrants, alien

State, globalization, elites,

terrorism, organized crime,

global warming, population

Nature, global change,

growth, development

Patriarchy, totalitarian

culture, intolerance,

violence

institutions (governments,

churches, elites), dominant

pattern, resilience

cultures, mass media,

internet

social gaps

ridinali, delider and Environmental Security (110dE)				
Degree of expansion	Denomination (security of what?)	References object (security of whom)?	Value at risk (security of what?)	Sources of threat (security from whom and for what?)
No expansion	National Security (political, military)	The Nation-state	Sovereignty, territorial integrity, power relations	Other states, terrorism, sub-state actors, guerrilla, terrorists, AMD

groups, social

movements

Individuals,

humankind

Ecosystem,

humankind.

green-house

gases, toxics

Gender relations.

indigenous, mino-

elders, vulnerable

rities, children,

groups

Source: Bjørn Møller, 2003:279 and Úrsula Oswald, 2001, 2004, 2008

Incremental Societal Security Nations, societal

Human Security

Environmental

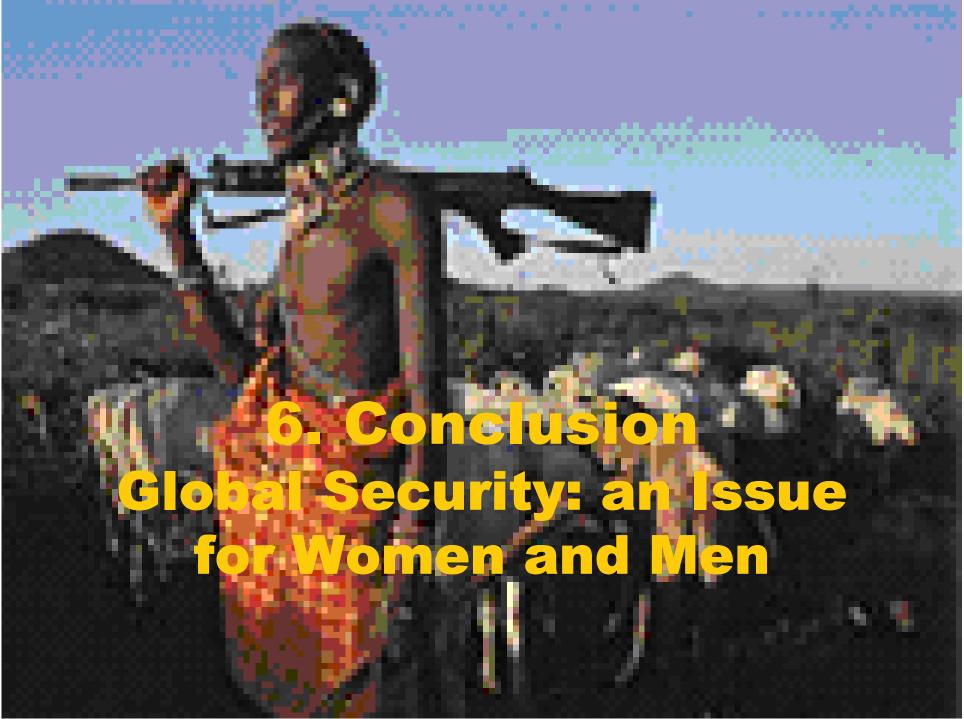
Gender Security

Security

Radical

Ultra-radical

Trans-radical



Obstacles to Human, Gender and Environmental Security: HUGE

- **Top-down policies:** unequal development processes, environmental destruction, injustice, concentration of wealth, and weak health, school and public security.
- **Bottom-up:** weak internal organization, unemployment, gender violence, analphabetism, missing solidarity and training, hunger and violent conflicts.
- Violent conflict resolution: intolerance; imposition of authoritarian solutions, undemocratic decision.

Alternative: A 'HUGE' solidarity process of sustainable and intra- and inter-generational equality and development, reinforced by international and local collaboration, solidarity and nonviolent conflict management and preventive risk reduction.

Prevention

- 1. Gender pattern of resource-use
- 2. Reduction of 50% of green-house gases (GHG) by 2050: Post-2012 Climate Change Agreement
- 3. Resource conservation and environmental culture
- 4. Recycling, reduction and reuse of water, waste, etc.
- 5. Restoration of deteriorated ecosystems (forests, corral reefs, mangroves)
- 6. Integral river basin management
- 7. Actions against land erosion and desertification
- 8. Disaster risk reduction and risk management
- 9. Early warning systems
- 10. National preventive disaster systems and funds
- 11. Gender-related disaster responses and training
- 12. Reduction of social vulnerability: 53% of disaster dead from countries with low human development index.

Women's Key Role in Emergencies

- 1. Climate change is not gender neutral: it affects human rights, human and gender security, and justice
- 2. Anticipation, early warning and prevention are effective routines to reduce victims
- 3. Climate change threatens livelihood, food and water security and poverty has women's face
- 4. Resilience-building, adaptation, mitigation and coping strategies reduces survival problems
- 5. Empowerment of women increases solidarity
- 6. Sustainable and ethical businesses create sustainable energy and with science and technology develop alternative energy sources, resource efficiency and restoration of ecosystems
- 7. Post-2012 agreements with a gender road map

CC: Holistic Sustainable Development

- 1. Non traditional threats to stability and for fulfilling MDG
- 2. Anticipation, early warning, prevention and preparation
- 3. Legal and financial disaster and risk management (top-down)
- 4. Empowerment and resilience-building (bottom up)
- 5. Environmentally-friendly and ethical businesses
- 6. Science and technology: green-house gases must be globally reduced 50% by 2050: small environmental businesses boost the local and national economy and create new jobs, industries and services
- 7. Decentralized systems of energy, often at small scale, are supplied with renewable energy sources (wind, solar-thermal, solar photovoltaic, sea and waves, biogas, biomass from waste, geothermal, hydro energy)
- 8. Basic livelihood for most vulnerable includes health care, food sovereignty, education, training, democratic practices for sustainable use of natural resources with participative planning
- 9. Women are contributing to sustainable livelihood and food security in poor countries.

Women Leaders: Agents of Change

- Gro Harlem Brundlandt: Commission on Sustainability
- Angela Merkel: G-8 meeting Heiligendamm and Post-2012 Agreement
- Tarja Halonen, human rights and democracy
- Margaret Beckett UNSC on CC as security issue
- Mary Robinson: UNHCHR, WWL
- Lorena Aguilar: IUCN
- June Zeitlin: WEDO
- Rigoberta Menchú, Wangari Maathai, Aung San Su and Shrinin Ebadi, Nobel Prices of Peace
- Francisca Rodríguez/Alicia Muñoz: ANAMURI, Chile
- Etelvina Masioli: Brazilian Landless Movement

Gender Empowerment mitigates CC

Complex networks sustain human life in normal times. Vulnerability increases during disasters and conflicts, when these networks break apart. Women and vulnerable are also indirectly affected by political, economic, social and emotional dislocation, and poverty has a women's face. **Nevertheless, women are agents of change.**

Alternatives:

- 1. Develop complex networks and training to support social resilience.
- 2. Gender specific indicators and actions related to gender security
- 3. Active female and male participation in education, disaster risk reduction and management.
- 4. In resilient societies women educate, care and maintain cultural and historical memory.
- 5. Survival strategies are basically in the hands of women.
- 6. Empowerment of women reduces gender violence and insecurity prior, during and after disasters. We represent half of world society, and we are also the mothers of the other half.

