

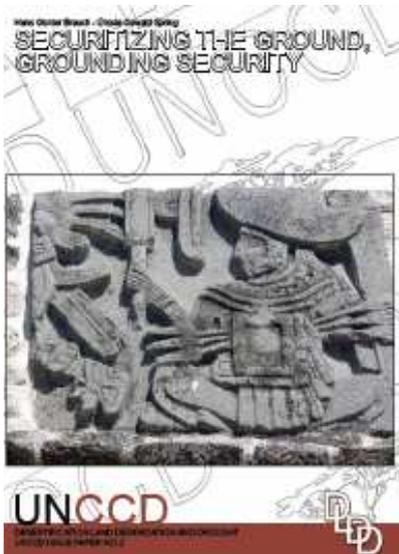


NACHHALTIGKEIT.
SUSTAINABILITY.
DURABILITÉ.
BONN.



Hans Günter Brauch,
Peace Research and European Security Studies

Securitizing the Ground, Grounding Security



World Day to Combat Desertification

17 June 2009

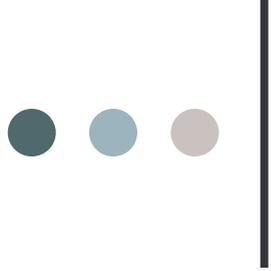
Old City Hall, Markt, Bonn



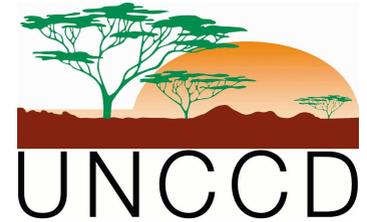
**UNITED NATIONS
UNIVERSITY
UNU-EHS**
Institute for Environment
and Human Security

Freie Universität  **Berlin**





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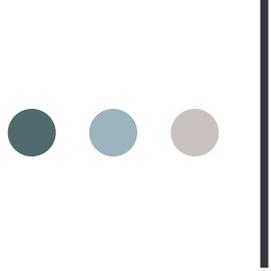


- **Conserving Land & Water – Securing our Common Future**
- **Challenge: Desertification, Land Degradation and Drought**
- **3 Concepts: Security, Securing, Securitization**
- **Reconceptualization of Security: Widening, Deepening and Sectorialization – Theory of Securitization of DLDD**
- **Securitization of the Ground (Land and Soil)**
 - **Food security, water security, soil security**
 - **Grounding Security: proactive security policy**
- **Diagnosis: DLDD as a Security Danger: PEISOR Model**
- **From Knowledge to Action**
- **Implementing Knowledge to Action**

Conserving Land & Water Securing our Common Future



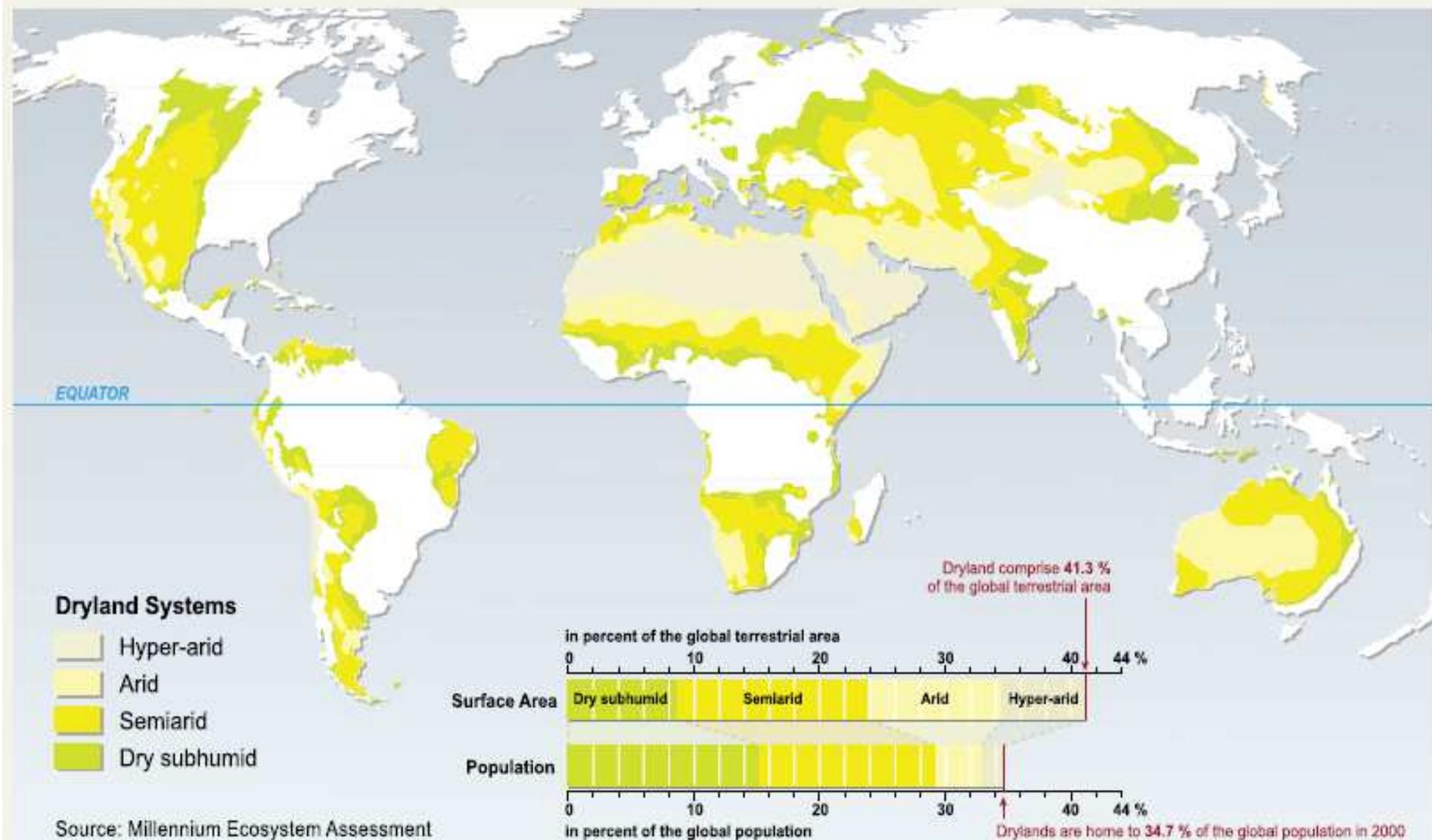
- World Day to Combat Desertification: **Conserving land and water = Securing our common future**
- Desertification, land degradation and drought (DLDD) threaten **human security** by depriving people of their means of life – by taking away food, access to water, the means for economic activities, and even their homes.
- In worst-case scenarios, they **undermine national and regional security, force people to leave** their homes and can trigger low- or high-level intensity **conflicts**.
- **Threats to soil security** unleashed by desertification, land degradation and the effects of drought constitute a **peril to securing our common future**.



Threefold Challenge: Desertification, Land Degradation and Drought (DLDD)

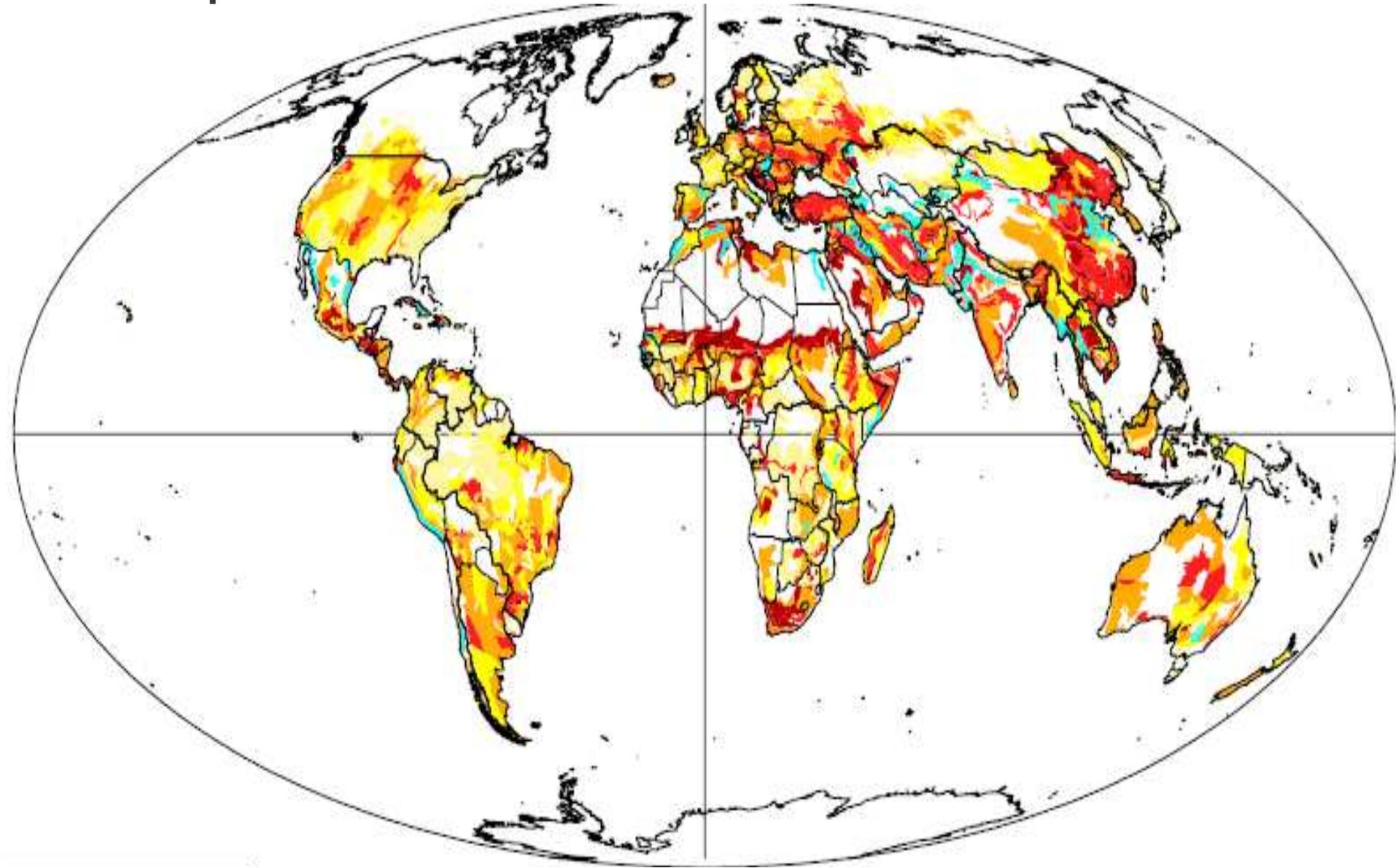
- **UNCCD (1994):** “desertification is caused by complex interactions among physical, biological, political, social, cultural and economic factors.”
- **UNCCD** dual task: (Art. 2) to “combat desertification” and “to mitigate the effects of drought”.
- **Land Degradation:** loss of environmental services or reduction of biological or economic productivity.
- **Land degradation** due to soil, water and wind erosion, fertility and biodiversity loss is prevailing in drylands affecting primarily marginalized people
- **Drought:** outcome of anthropogenic & climatic factors

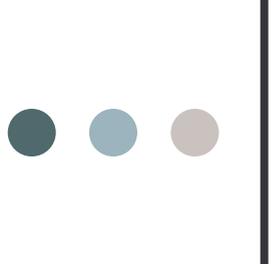
Millennium Ecosystem Assessment (2005): Drylands: all lands where the climate is classified as dry subhumid, semiarid, arid or hyper-arid.



Source: Millennium Ecosystem Assessment

● ● ● **Global soil degradation (% affected area). Source: WBGU (2006), GLASOD (1990)**





Three Concepts: Security, Securing and Securitization

What have DLDD and Security in Common?

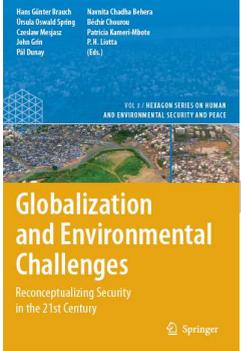
Security: basic value and goal of humans & states

Wolfers (1962) pointed to two sides of the 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**”.

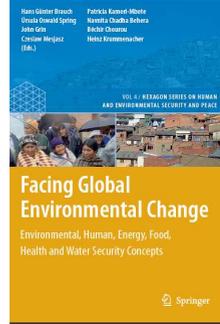
Objective Security: absence of threats posed by DLDD

Subjective Security: people feel secure of DLDD effects

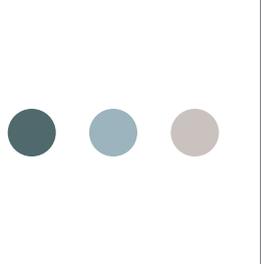
- From a constructivist approach in international relations ‘security’ is the outcome of a process of social & political interaction where social values & norms, collective identities & cultural traditions are essential.
- **Security:** *intersubjective* or “**what actors make of it**”.
- **Securing:** Process of creating a sense of security



Widening, Deepening and Sectorialization of Security Threats, Challenges, Vulnerabilities & Risks



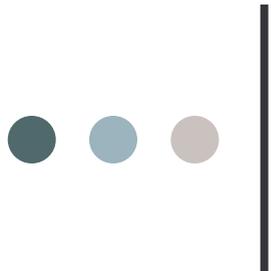
Security dimension ► Level of interaction ▼	Military	Political	Economic	Environmental ▼	Societal
Human ►			Securing soil, water, food, health, livelihood and energy for human beings combining all levels of analysis & interaction		
Village/Community/Society			▼▲		
National	Security dilemma of states	Social, energy, food, health, livelihood and soil threats may pose a survival dilemma in areas with high vulnerability			
	Security of the territory				
International/Regional/Global			▼▲		



What does Securitization mean?

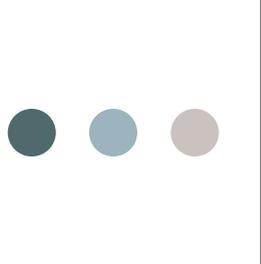
Securitization Theory

- **Securitization theory developed by Waever (1995)**
- **“Securitization”**: is an intersubjective theoretical approach by which a problem is constructed by discursive and political processes in such a way that a danger is declared as an **“existential threat”** that requires **“extraordinary political countermeasures”**.
- **Securitization Theory: Copenhagen School** analyzes DLDD issues as an **existential threat** to sovereignty, where the state is the major securitizing actor.
- **The threat is posed by us** (our economic behaviour) and the **impact of anthropogenic climate change**.
- Classic **security policy with military means** (weapons) **no answer** to human and environmental security problems.
- **Goal is not the militarization of the environment but the demilitarization of the environmental dimension of human security!**



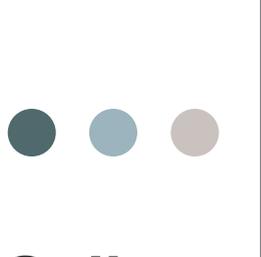
Securitization of DLDD

- **Spanish government** launched a process of securitization of desertification with UNCCD: 4 international workshops in **Almería** (1994, 2006); **Valencia** (2003, 2007).
- **Spain contributed making DLDD an issue of “utmost importance”** requiring “**extraordinary measures**”.
- **UNCCD** discussed security risks at CRIC 3 (Bonn, 2005).
- **2006: AA workshop: Desertification as a security threat?**
- 30 November 2007 Foreign Ministers of the OSCE countries adopted the ‘**Madrid Declaration on Environment and Security**’. Environmental risks: “**those related to land degradation, soil contamination, desertification and water management.**”



Securitizing the Ground (Land, Soil) and Grounding Security

- ***Securitizing the ground*** creates wider global political awareness for DLDD and societal consequences.
 - Land as **territory**: classic **territorial security** of **states**
 - Ground as **soil**: new **soil security** concept of **humans!**
- ***Grounding security*** includes **reactive and proactive short-, medium- and long-term strategies for mitigation and adaptation to soil insecurity** & societal, environmental and economic consequences.
- Addressing both aspects of **soil security** with political process of **securitization of DLDD** and development of effective international strategies, national policies and local measures requires understanding of complex natural and societal interaction.



New Soil Security Concept:

Conserving land and water = **Securing** our common future

Soil security that can be analysed from the perspective of state and human, gender and environmental security refers to a

- loss of soil capacity to regulate & store water
- the depletion of aquifers for drinking and irrigation that puts in extreme cases the survival of affected people at risk.

Soil security is threatened by

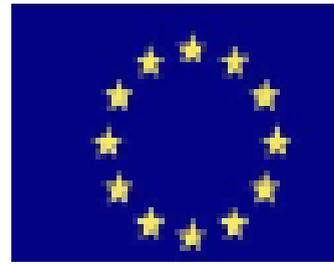
- the **spatial expansion of existing deserts**,
- the **severe degradation of soils** and related fertility and biodiversity losses due to processes of geophysical, wind and water erosion and
- **drought resulting in bad harvests and crop yield declines.** In developing countries DLDD has triggered severe and extended periods of famine affecting several billion people during the 20th century and causing the death of millions of people.

Soil security is achieved when efforts succeed

- **to conserve soil fertility:** contain land degradation and combat desertification and
- **when the consequences of drought are reduced by improving livelihood and human well-being of the people.**

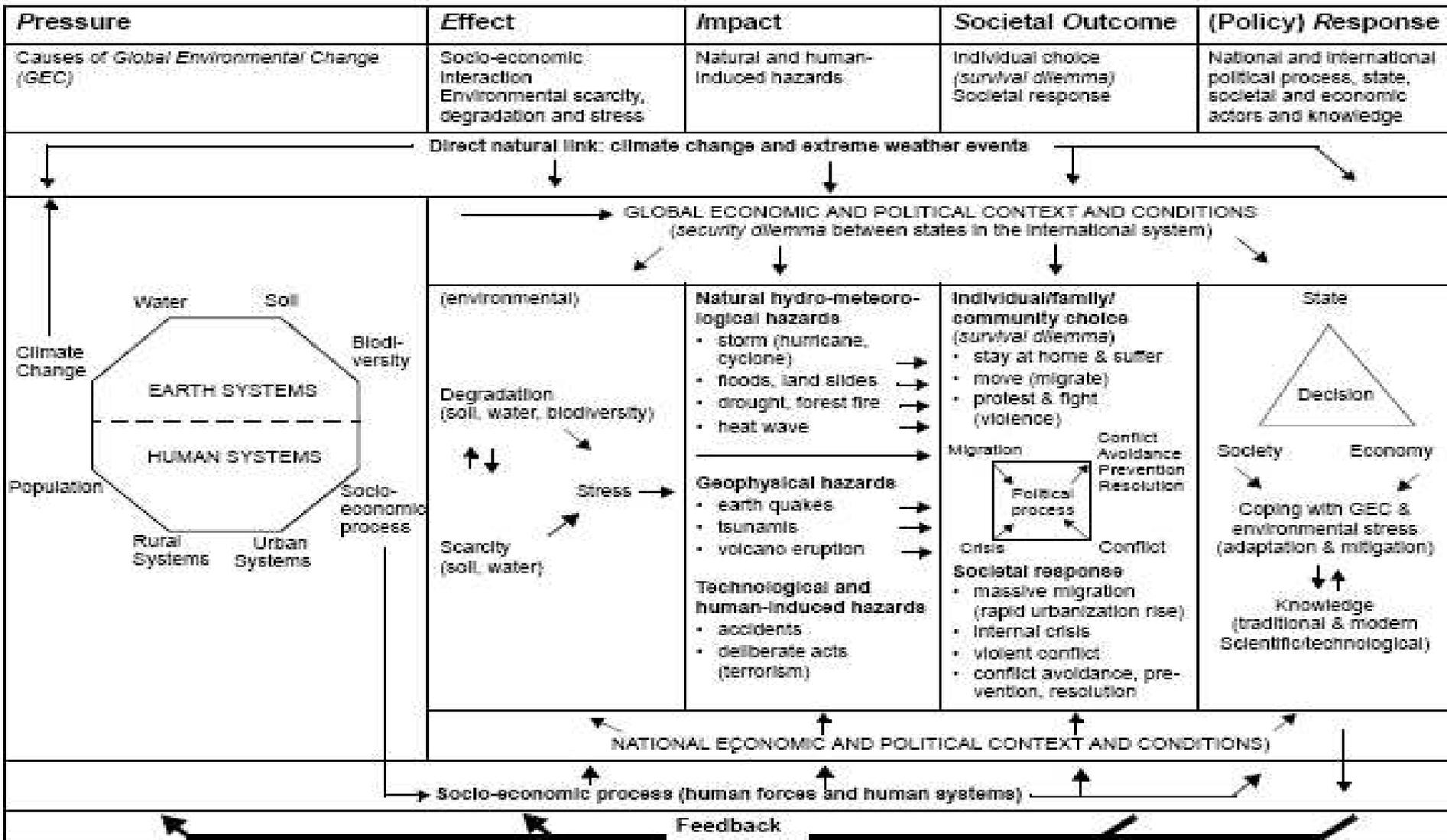


DLDD: UN Debate & EU-Studies Climate Change & Security

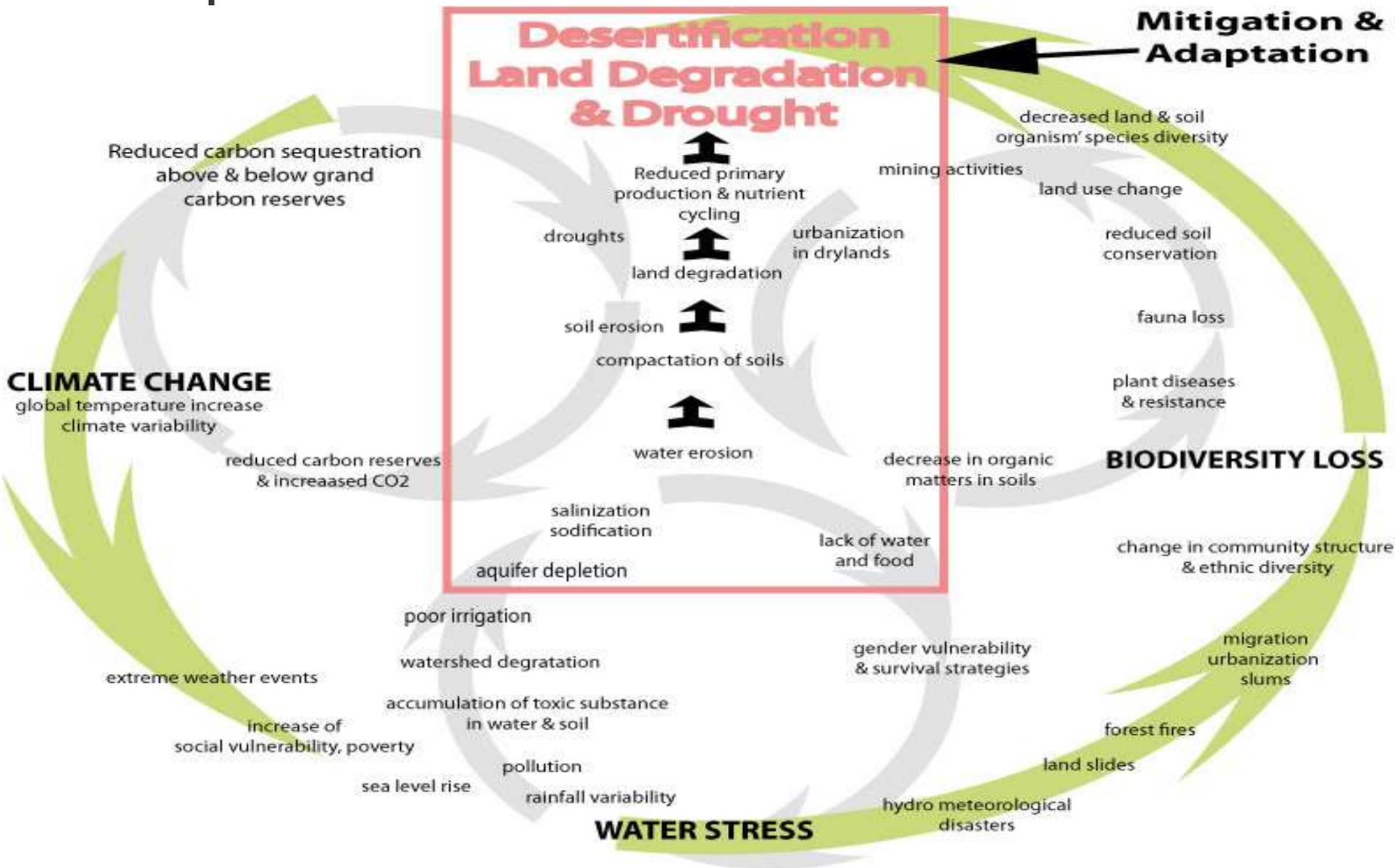


- 17.4.2007: Controversial debate in the UN Security Council: Climate change & international security**
- June 2007: WBGU Report: Security Risk Climate Change**
- 14.3.2008: EU Commission and Council: Paper on Climate change and international security**
- May 2008: Athens: Human Security Network: Climate change and human security: victims of migration**
- 11.12.2008: European Council: Report on Implementation of European Security Strategy**

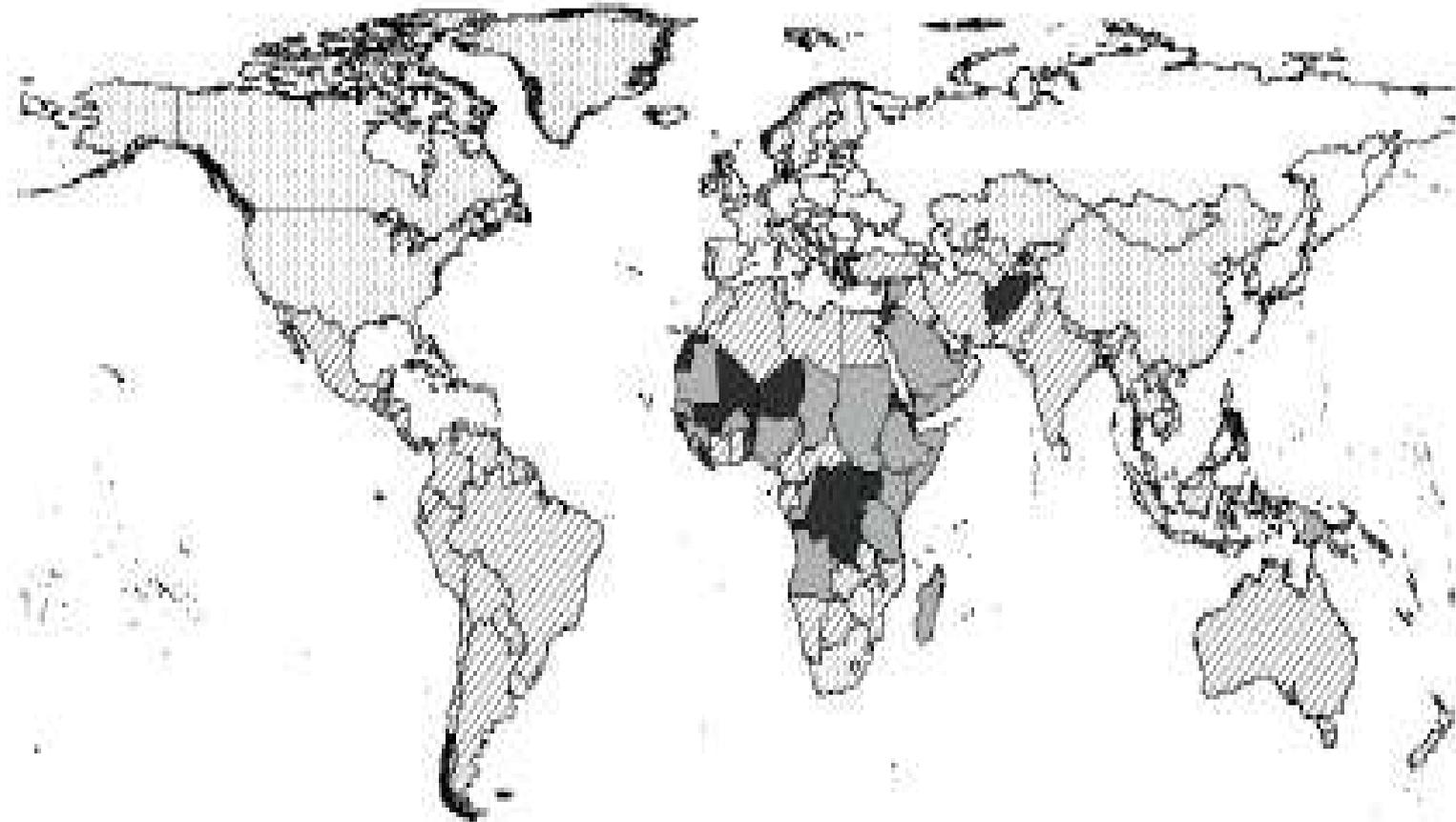
Diagnosis: DLDD as a Security Danger: PEISOR Model



P: Pressure: Interactions of GEC

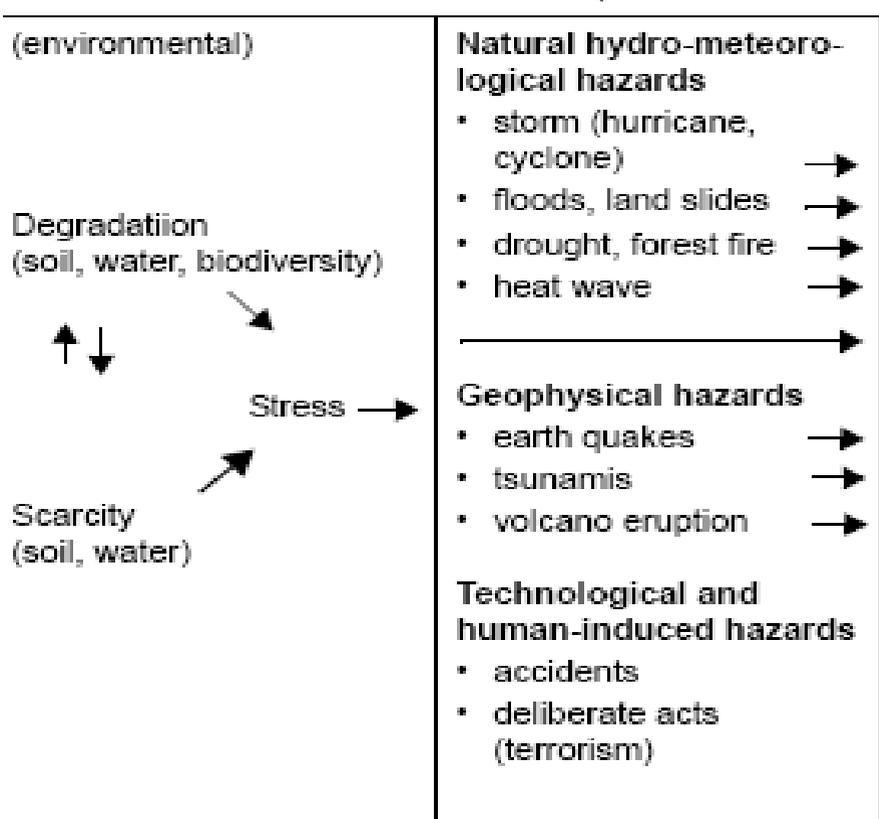


● ● ● Average annual rate of populations
change (2005-2010), med. variant (%).
Source: UN Populations Division (2007)



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

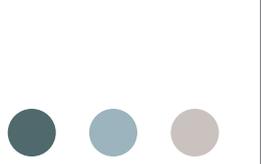
Direct natural link: climate change and extreme weather



NATIONAL ECONOMIC AND POLITICAL

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)**

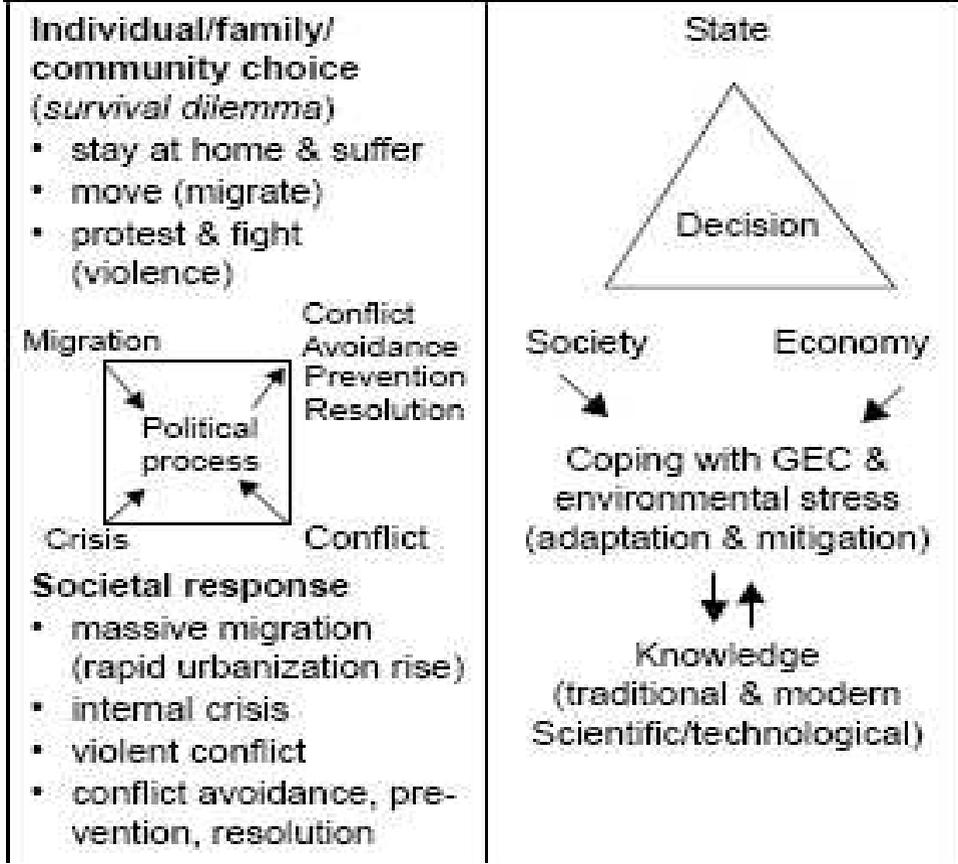
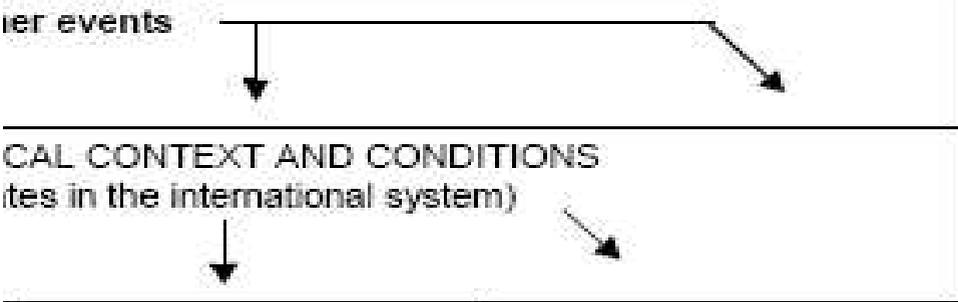


Most severe droughts (1900-2008)

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



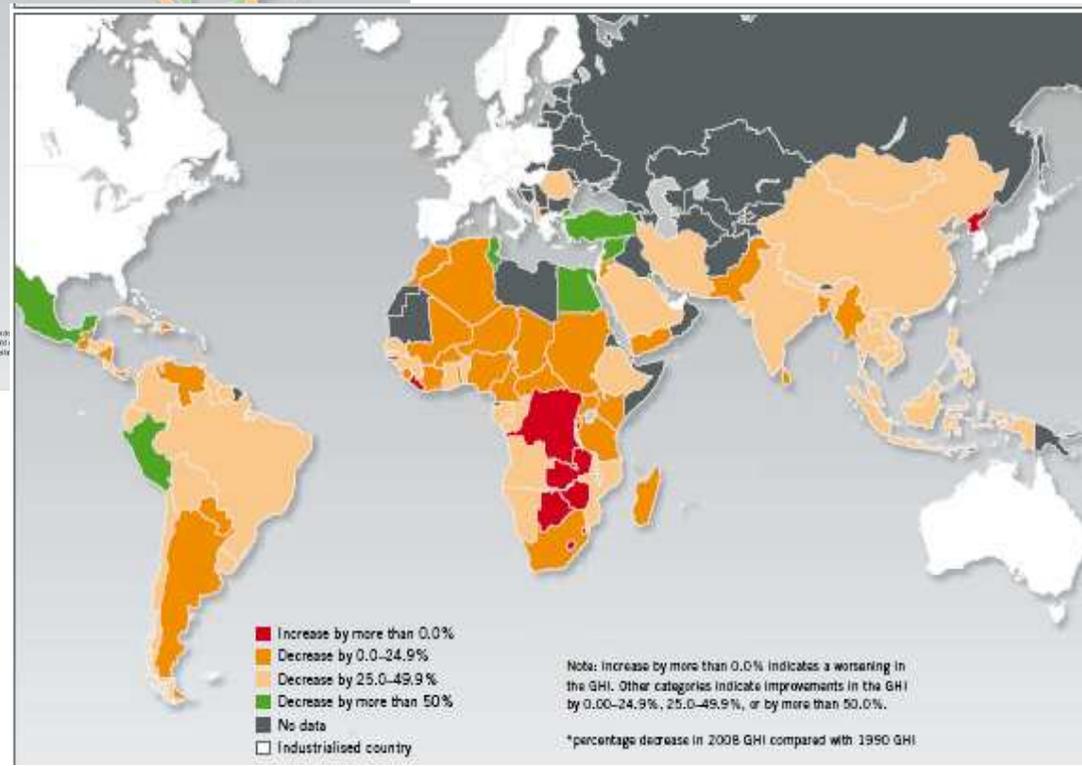
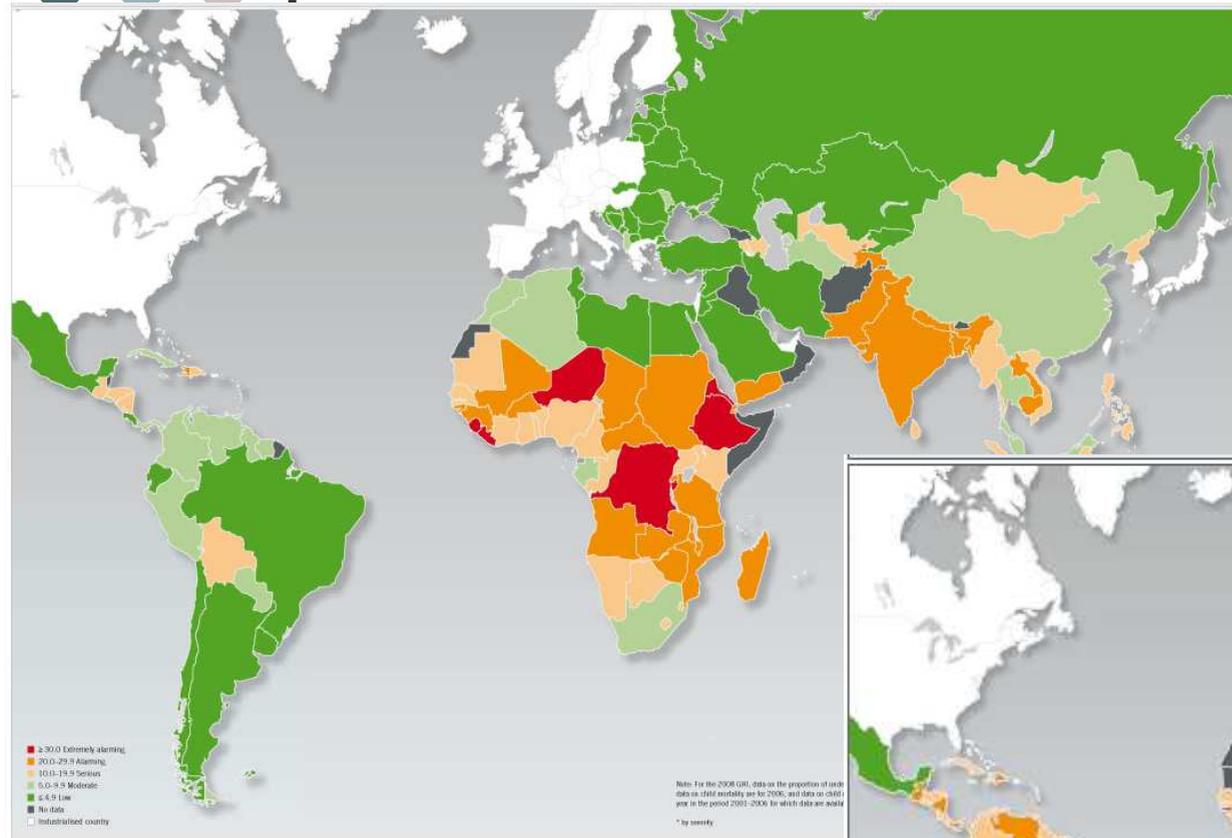
SO: Societal Outcomes

- 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**

Global Hunger Index 1990-2008

← 2008 Global Hunger Index.

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



Source: IFPRI, 2008

Migration currents

Distance no object

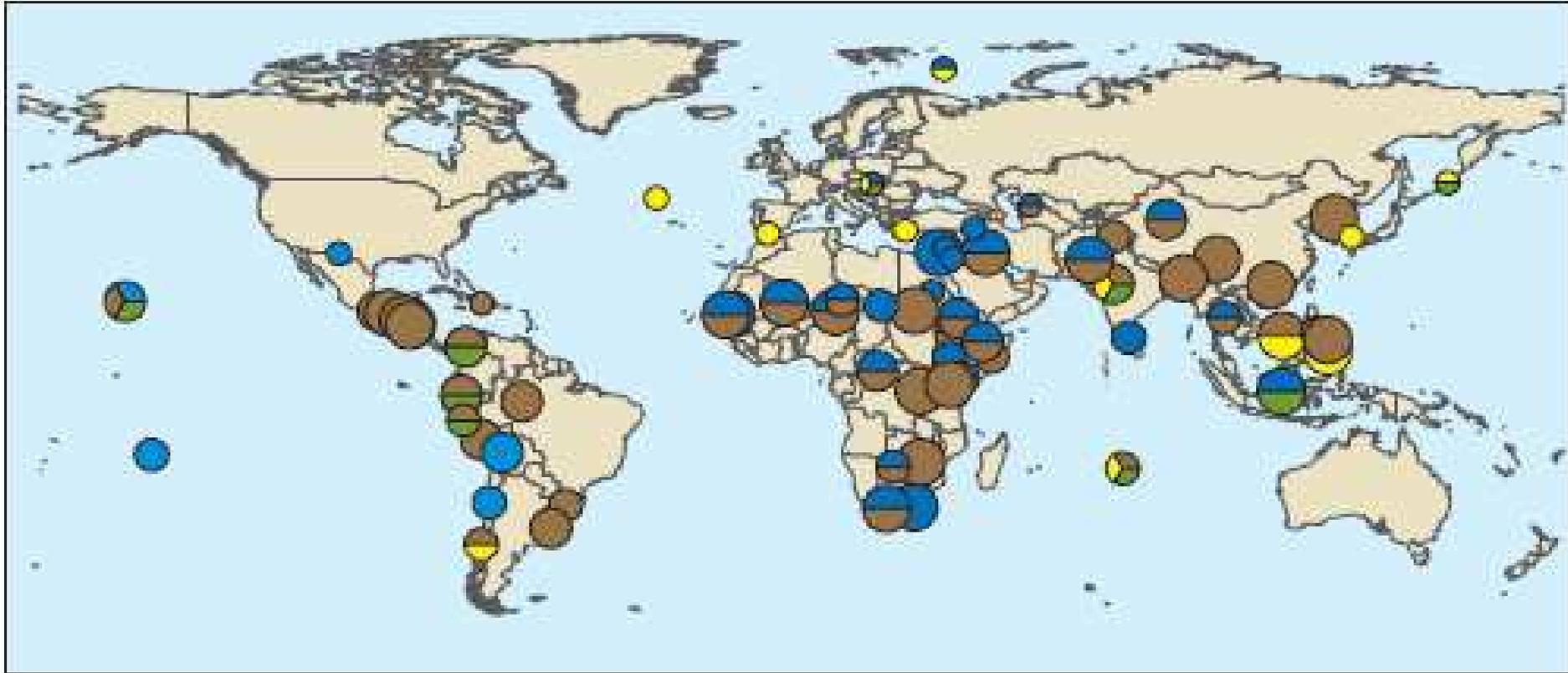
Some of the world's more important current migration routes



Sources: National Public Radio;
The Economist

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

Environmental Conflicts: Water and Soil (1980-2006)



Conflict intensity

- Diplomatic crisis
- Protests (partly violent)
- Use of violence (national scope)
- Systematic/collective violence

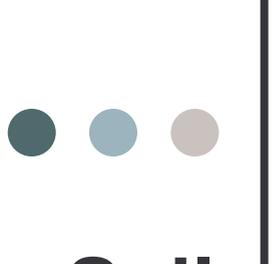
Conflict cause

- Water
- Land/soil
- Fish
- Biodiversity

Source: WBGU (2008: 32)

R: Policy Response to DLDD Dangers

- 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



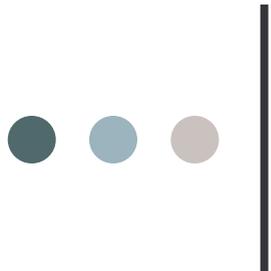
From Knowledge to Action

- **Soil security concept** highlights **multiple causes, effects, impacts and societal outcomes** of soil insecurity and contribute proactive policies for grounding security
- **Emerging security challenges** of DLDD require **extraordinary proactive policy measures** to counter worst case developments in vulnerable hotspots.
- **Cost of inaction** or late policy response are much higher than acting early by launching proactive strategies, policies and measures.



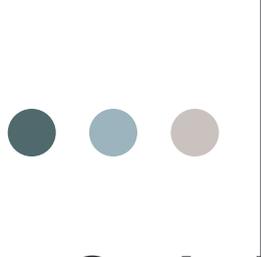
From Knowledge to Action: Addressing Causes & Security Impacts of DLDD

- **Evidence-based assessments** are key factors for affected countries **adopting proactive response strategies, policies and measures** that include best practices and traditional and modern scientific knowledge.
- **Response** necessitates the **involvement of the state, the society, the business and academic community**.
- **Good governance, scientific recognition** and public awareness call for processes of **anticipatory learning and proactive policies to mitigate societal impacts of complex nature-human interactions to prevent that projected trends become a future reality**.



Implementing Knowledge to Action Requires

- ❖ **Extraordinary Policy Measures for Enhancing Soil Security**
- ❖ **Demand Side Management and Efficiency Improvements**
- ❖ **Supplying More Environmental Services and Food with Less Resources**
- ❖ **Transition to Alternative Livelihoods and Sustainable Economy**
- ❖ **Responding to and Coping with Environmentally-Induced Migration**
- ❖ **Avoiding Environmentally-Induced Conflicts**



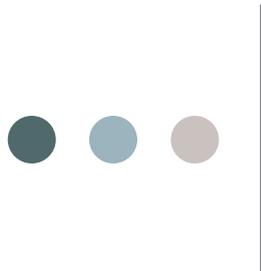
Supplying More Environmental Services & Food with Less Resources

- **Optimized territorial governance** of ground water, water harvesting; land & basin managements enhance or **restore soil fertility**; soil drainage and water-saving irrigation techniques reduces salinity & water-logging problems, maintains crop yield.
- **Produce food for growing population** requires **efficiency increase in agriculture**: a) change of human diet, b) reduction of animal proteins can feed more people with less resources.
- **Plastic greenhouse technology conserves** residual humidity, uses dew for irrigation and reduces plagues, organic fertilizer.
- **Control of wind & water erosion & of moving sand dunes** involves trees, shrubs and grasses, with improved irrigation and soil management techniques.
- **Improve the quality & quantity of water, energy efficiency and renewables** from solar, wind and waste play a crucial role.
- Tropical deserts have **highest solar radiation**: generate solar energy for desalinization of brackish groundwater or sea water.



Responding to & Coping with Environmentally-Induced Migration

- **Most cost-effective** and **human policy responses** to environmental migration are to **intervene at earliest possible stage**.
- **Sustainable development assistance** must engage the most vulnerable to strengthen adaptation capacity of communities affected by DLDD, more so in the context of climate change.
- **Community stabilization through participatory governance** should involve diasporas and returning migrants to optimize their financial resources.
- **Urban authorities** should be prepared to limit negative impacts on the environment due to the influx of population.
- **Expected additional flow** of environmental migrants requires **capacity building** to reduce push factors of population movements and **to cope with irregular migration**, human trafficking.

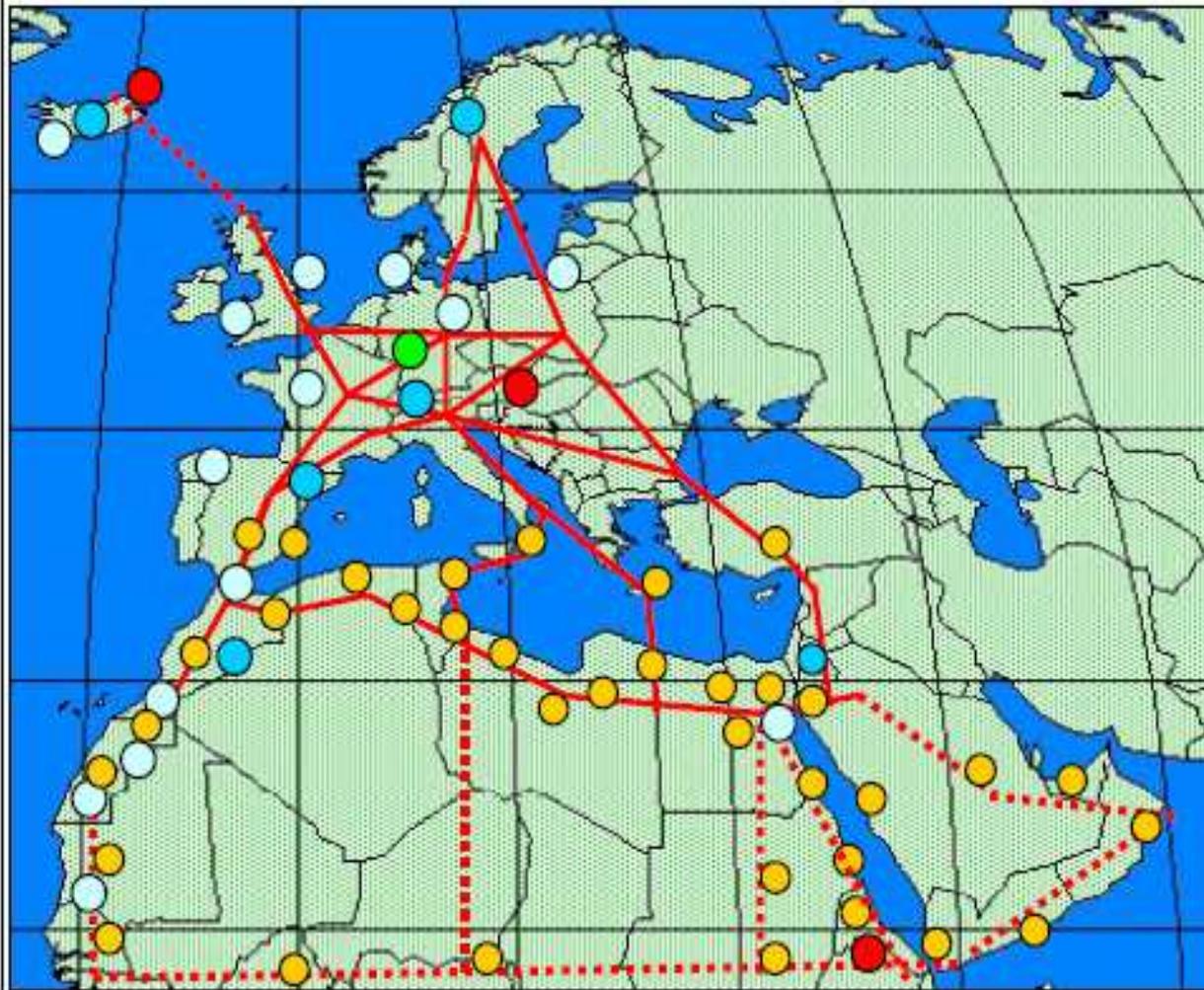


Avoiding Environmentally-Induced Conflicts

- **Joint North-South anticipatory learning**, peace building, search for action-oriented strategies to cope with root causes and socio-economic implications.
- **Survival pact**: linking the *virtual water* through food imports with the *virtual sun* or renewable energy exports through partnership building.->**TREC**
- **Functional cooperation against soil erosion**, DLDD, water scarcity & pollution, employment in rural areas and in intermediary urban networks.
- **Empowerment of grassroots stakeholders** enhance human and societal security, expands adaptation measures and soil security & reduces costs of coping with consequences.

Trans-Mediterranean Renewable Energy Cooperation (TREC)

Trans-Mediterranean Renewable Energy Cooperation (TREC)



Common water, energy & climate security

● solar thermal power & desalination complex employing cogeneration and solar heat storage for day/night operation, optional: agriculture in the collector shade

○ wind,

● hydro, power and storage

● biomass,

● geothermal,

— ····· High-voltage direct current transmission grid (HVDC), stage 1 and future extension

Circles and lines do neither designate precise nor all locations.

Power transmission losses

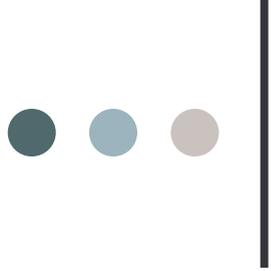
MENA – Europe < 15%

Power and fresh water for MENA

Clean power for Europe

Eventually hydrogen for Europe

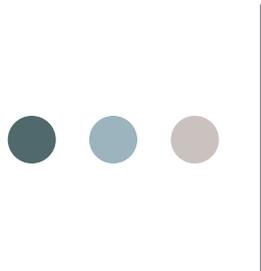
Production of wind turbines and solar collectors in MENA



Policy Recommendations

Within its 10 years strategy (2007), the UNCCD pursues 5 operational objectives which may be strengthened by these policy recommendations on:

- **Knowledge Creation and Management**
- Awareness Raising
- Policy Advocacy
- Capacity Building
- Channelling Resources



Knowledge Creation and Management

These proposals should contribute to achieving soil security through research capabilities on DLDD.

- In the framework of the **Earth System Science Partnership** a **5th science programme on research needs related to DLDD** should be established.
- An **interdisciplinary scientific panel on DLDD** should be set up to assess research and to publish an assessment of DLDD knowledge.
- These proposals should **strengthen the CST** to translate knowledge into policy advice for action for a proactive strategy of sustainable development.
- **Specific studies should be funded by UNCCD member countries on:**
 - **DLDD-induced forced migrations due to desertification land degradation and drought**
 - A systematic study on **soil security and societal outcomes** including forced migration, crises and conflicts by developing scenarios for coping with DLDD.

UNCCD
DESERTIFICATION, DEGRADATION OF LAND AND DROUGHT
CLD - DOCUMENTO TEMÁTICO N.º 2

Background Reading on DLDD: Hexagon Series: Volumes I-IV



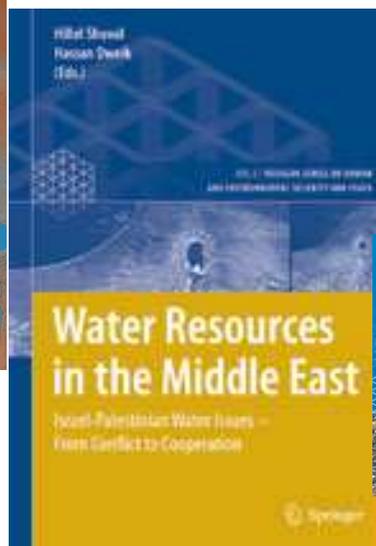
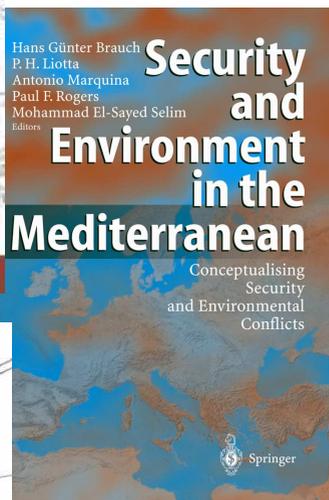
UNCCD

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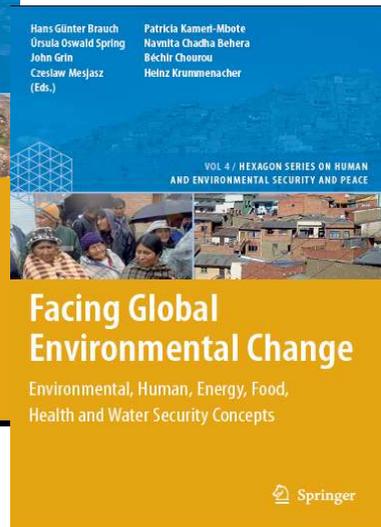
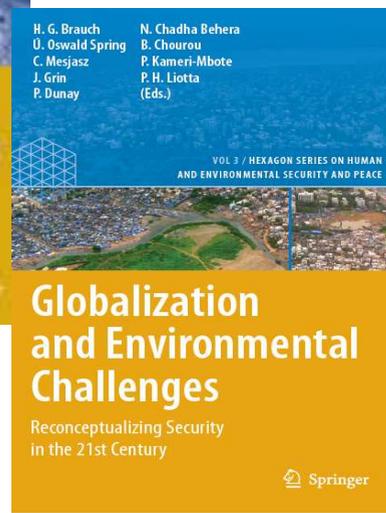
UNCCD

DESERTIFICATION, DEGRADATION OF LAND AND DROUGHT
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Hexagon Series on Human, Environmental Security and Peace (HESP)

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



<http://www.unccd.int/knowledge/docs/dldd_eng.pdf>

Conserving Land & Water Securing our Common Future



Thank you for your attention

http://www.afes-press.de/html/download_hgb.html