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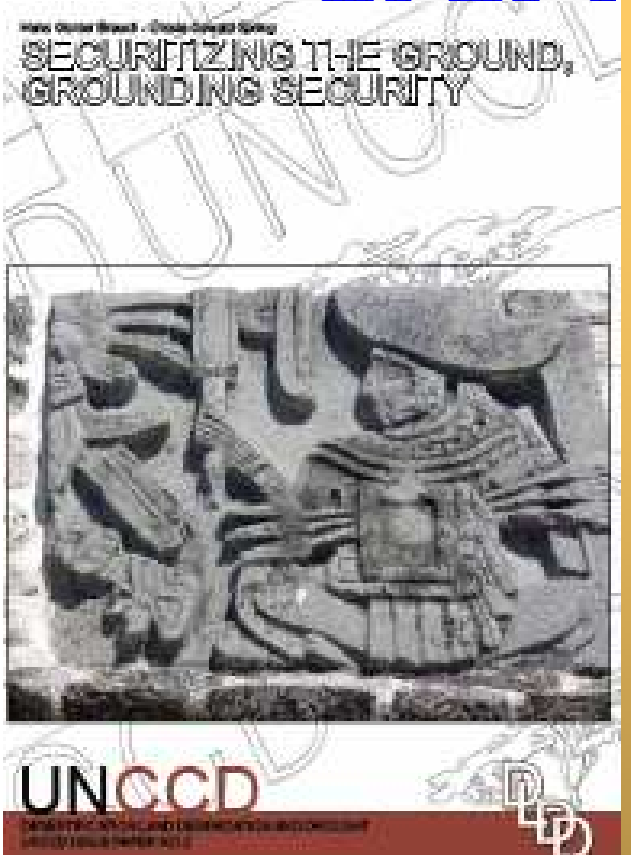
Securitizing soil: a sustainable peace action



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1. Research Questions

- Why are d*esertification and land degradation* discussed as **security issues**?
- Does desertifiaction pose **security dangers** and concerns for whom, from what and how?
- What does the concept of **soil security** mean?
- Why is **securitizing the ground** policy-relevant?
- Which **proactive policy** measures are needed to ground security to avoid negative impacts?
- **Goal: Develop sustainable peace actions with a combined soil, water and food security for the people most affected by desertification.**

Objectives of the Study

The paper discusses:

- interactions as **objective security dangers** and **subjective security concerns** for humans, the state and the international community;
- introduces '**soil security**' as new sectoral concept & reviews factors contributing to '**soil insecurity**';
- reconsiders the 'securitizing moves' by international organizations, nation states and civil society and analyses **desertification and land degradation** as an issue of **utmost importance that requires extraordinary policy measures for preventive and peaceful coping** with its consequences to avoid migration, crises and conflicts.

Desertification: a Challenge to Humankind

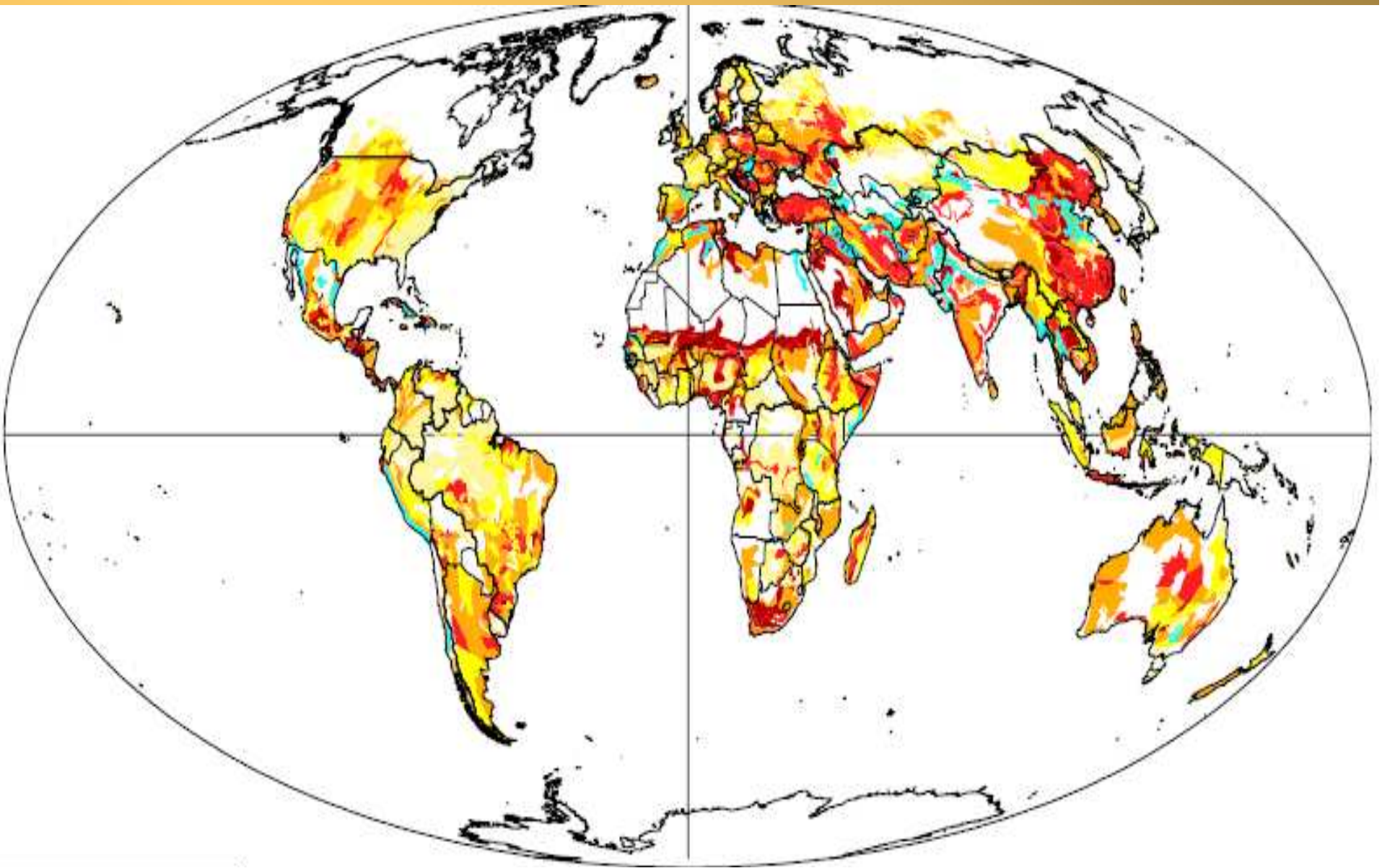
- **Process of drought, desertification** & land/quality of soil have degraded: GLASOD 15%; GLADA 24% of global land surface.
- **Anthropogenic & climate change reinforce the vicious circle of desertification, loss of harvests, forced migration, political crises, famine and conflicts that are creating threats for human, national and international security,** aggravated further by:
  - **poverty** (overgrazing and overuse of the land),
  - **market-driven expansion** of agricultural production with over-fertilization and loss of organic materials
  - **depletion of aquifers** in drylands with salinization of soils.

Desertification as a global threat

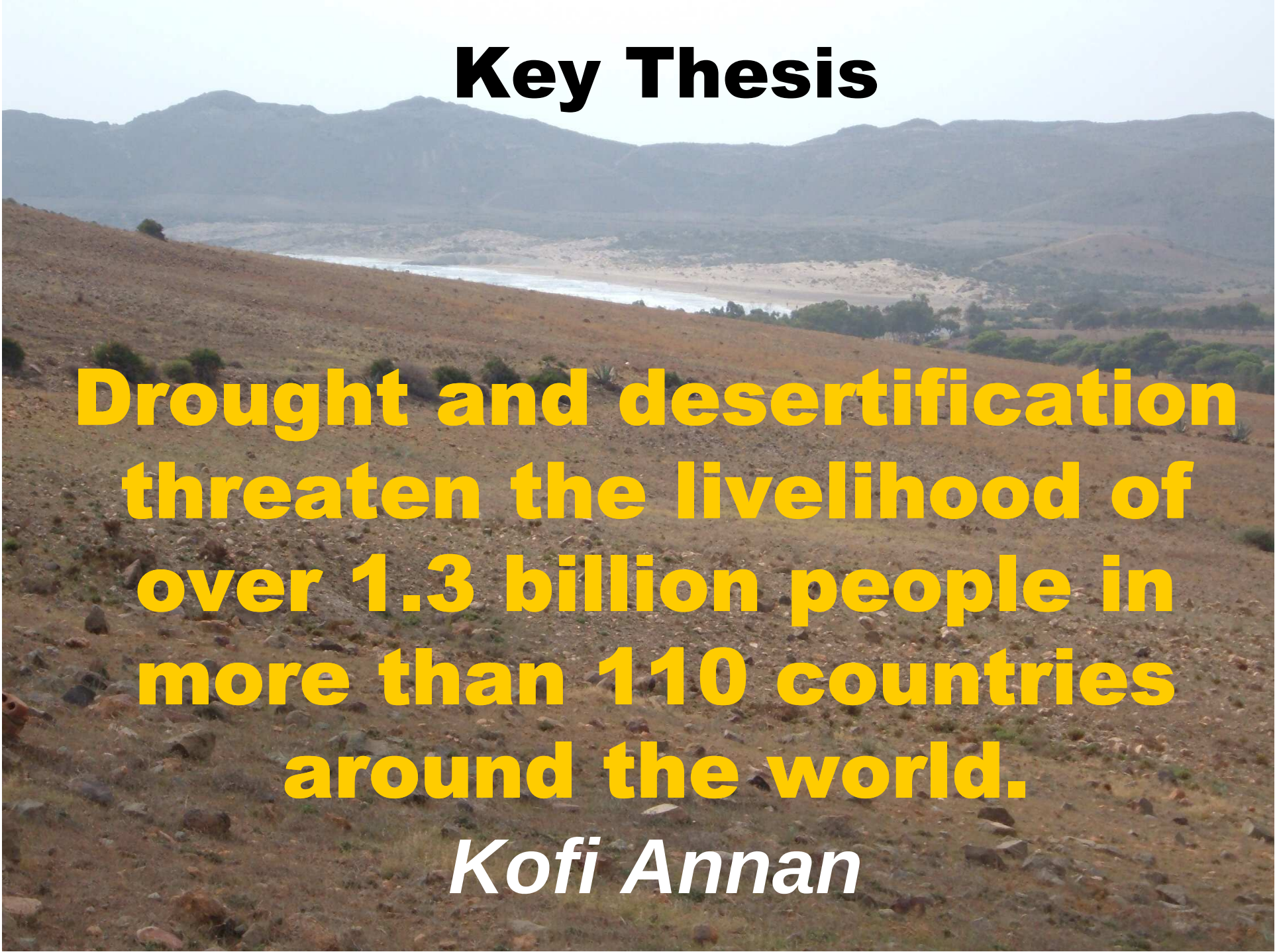
- No agreement exist on **extension of drylands** and land affected by desertification: 33-41% of Earth
- **Desertification costs: US$ 42 billion/year (Africa:** US$ 9 billion/year); **Productivity loss/year**: 0.5 to 1%; 20% accumulated during 40 years in Africa;
- **Population affected:** 1.5 - 2 billion people in more than **110 countries**.
- **North America** 74%) of severely or moderately desertified drylands; 13 **European** countries suffer from desertification.

Global soil degradation (% affected area)

Source: WBGU (2006) based on GLASOD (1990)



Key Thesis



Drought and desertification threaten the livelihood of over 1.3 billion people in more than 110 countries around the world.

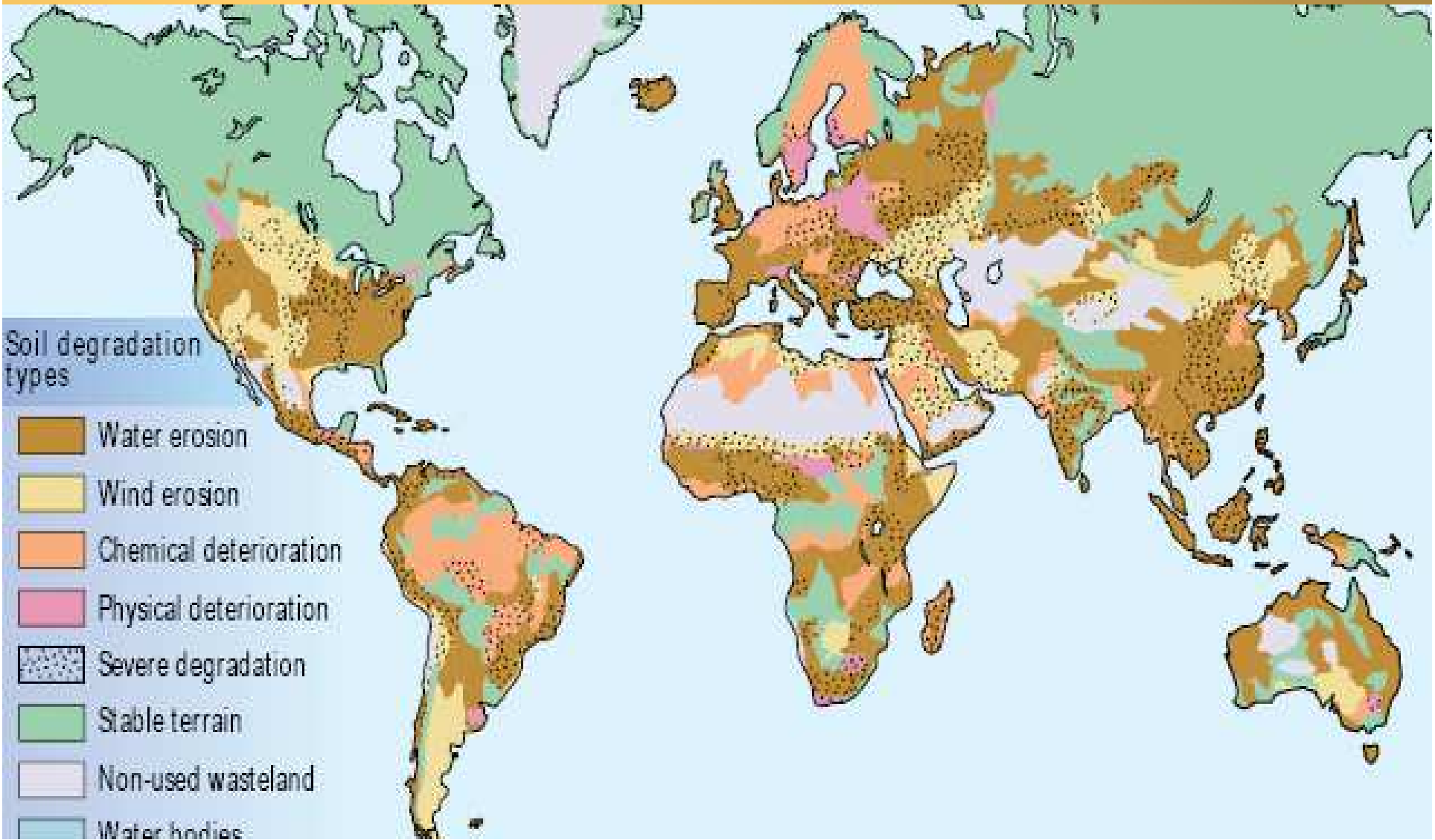
Kofi Annan

2. Policy Context: Multiple Crises & Their Causes

1. ***Economic crises:*** **collapse of banks, insurance, companies, decline in GDP, wealth and remittances of migrants, increase in unemployment; global bailout 27 trillion US$ (IMF, 2010).**
2. ***Population Growth:*** **20th century from 1.6 to 6.1 billion; until 2050 projected to 8.5 billion, mostly in drylands in poor countries.**
3. ***Climate Change*** **by 2100*:* temperature rise 1.1 to 6.4℃; sea-level may rise 18 cm to 2.4 metres; precipitation decline and temperature increase: hotter drier in drylands with more hazards (heat waves, drought, forest fires and storms & floods affecting people and economy).**
4. ***Water Security:*** **20th century population tripled; water consumption six fold. Water crises: scarcity, pollution, salinization & overexploitation of aquifers. By 2025, 2.8 billion people in 48 countries will face water stress (40 in West Asia, North & Sub-Saharan Africa)**
5. ***Food Crises:*** **One billion of people suffer from hunger in 2009; food price rise provoked 65 million more hungry people. MDG cannot be reached affecting above all rural and urban poor.**

Human-induced Soil Degradation

Source: ISCRIC-UNEP (1996: 12)



3. Adressing desertification: Scientization, Politicization, Securitization

Three stages of **Global Environmental Change** (GEC) and of **DLDD** can be distinguished:

a) since 1970's of scientific agenda-setting and research (**scientizing**),

b) 1992 (Rio de Janeiro): **politicizing**

c) **securitizing:** of water (The Hague 2000); desertification (Valencia 2003); climate change (Security Council 2007).

Scientization

- **Global Assessment of Human Induced Soil Degradation** (GLASOD) (1990) by the **International Soil Reference and Information Centre** (ISRIC) first global assessment of soil degradation.
- **TerrAfrica** scaling up harmonized support for country-driven (SLM) practices in Sub-Saharan African countries and NEPAD.
- **DesertNet** interdisciplinary group of scientists in Europe to support communication with policy makers and with other stakeholders.
- **ARIDnet** research coordination network in Americas and Australia addressing *biophysical & socio-economic* factors of desertification.
- **Earth System Science Partnership** (ESSP) with: climate change (WCRP), biodiversity (DIVERSITAS), water (GWP) and health (GECHH).
- **No similar assessment body compared to IPCC exists.**

Politicization

- **Earth Summit in Rio, 1992** with 3 conventions: climate change (UNFCCC), biodiversity (CBD) and **desertification** (**UNCCD**) promote international governance and **World Water Fora**.
- UNCCD put DLDD on international political agenda through its **conferences of parties** (COPs) & **Committee for the Review of the Implementation of the Convention** (CRIC).
- **World Summit on Sustainable Development** (WSSD) in 2002 Global Environment Facility (GEF) put land degradation as Focal Area with an Operational Programme on Sustainable Land Management (SLM).
- 2007: debate of the **Security Council on Climate Change recognized DLDD** issues within climate related security risks.
- UNCCD is **missing** a Stern Report (2006) on **potential costs of non-action**

Security and Securitzation

- **Which Security?** Security for whom? (referent object); security of what? (endangered values); security of whom? (sources of fear)
- **Wolfers (1962):** 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***”.
- 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 is *intersubjective* or “what actors make of it”.**
- **Since 1989 a reconceptualization of security due to:**
  - **End of Cold War (bipolar international order)**
  - **Globalization**
  - ***Global Environmental Change* (Climate change, water, DLDD)**
  - ***War on Terrorism (from 2001 on)***

Securitization Theory

- **“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 GEC and soil 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 soil management & climate change**
- Classic security policy and means are **no answer** to human and environmental security problems.
- **Goal is not militarization of the environment but the demilitarization of the environmental dimension of human security by preventive behaviour and the peaceful negotiation of environmental conflictive issues!**

Securitization of Soil

- Spanish government launched a process of securitization of desertification together with UNCCD through 4 international symposia/workshops in Almería (1994, 2006) and Valencia (2003, 2007).
- Spain contributed making desertification and land degradation an issue of '**utmost importance**' requiring '**extraordinary measures'.**
- UNCCD discussed security risks during CRIC 3 (Bonn, May 2005).
- 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."

4. Securitizing the Ground (Land, Soil) and Grounding Security

- ***Securitizing the ground*** creates wider global political awareness for desertification & societal consequences
- ***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 desertification and development of effective international strategies, national policies and local measures requires understanding of complex natural and societal interaction.

2 Sides of Securitizing Ground: Territorial vs. Soil Security

Securitizing the ground refers to two aspects:

- **land as territory** refers to the **classic security**, which is key feature of sovereignty at national level;
- **land as soil** that produces essential ecosystem services, including food for living organisms is a new **soil security concept**.

New Soil Security Concept

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.

Impacts of Securitzing Soil

Securitizing soil implies that

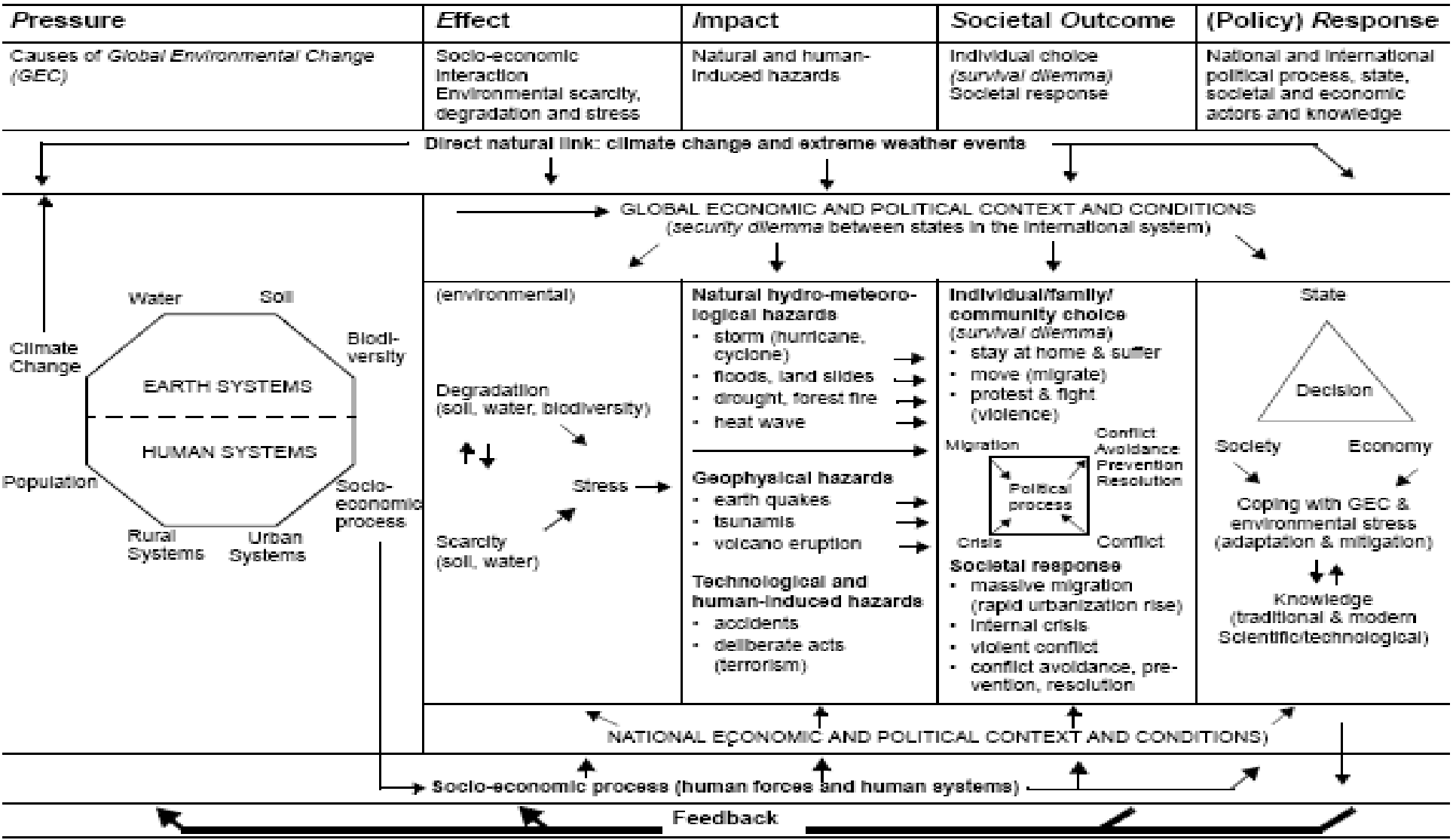
- governments, international organizations (UN), programmes (UNDP, UNEP)
- multilateral environmental agreements (UNFCCC, UNCCD, CBD), networks (ARID*net*, Desertnet, TerrAfrica, Nepad, RIOD) and knowledge-based epistemic communities (IPCC)

succeed to counter desertification & land degradation

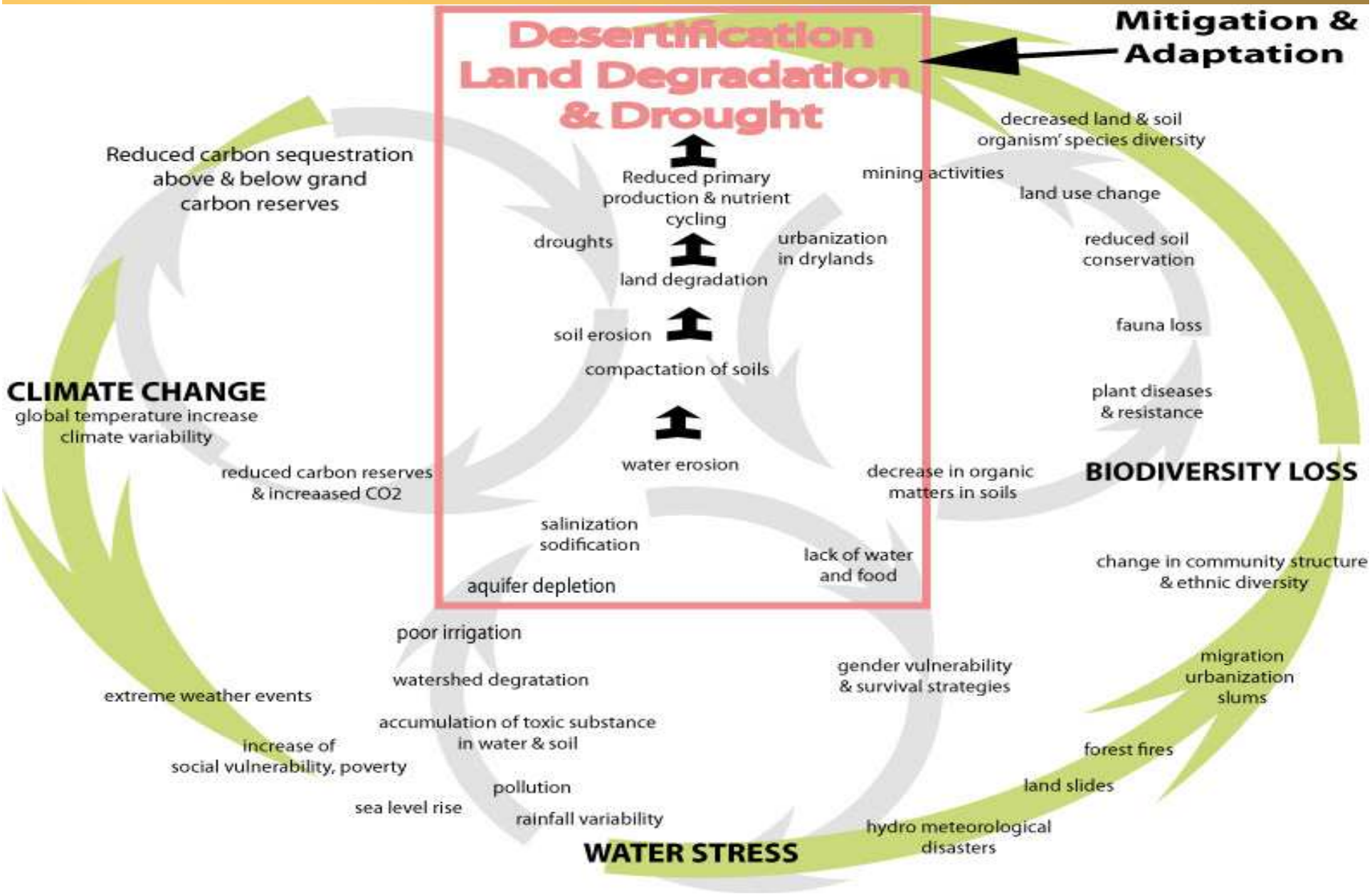
Labelling environmental, societal, economic & food aid as **security threats of utmost importance** for **the top political level,** justifies **extraordinary measures**

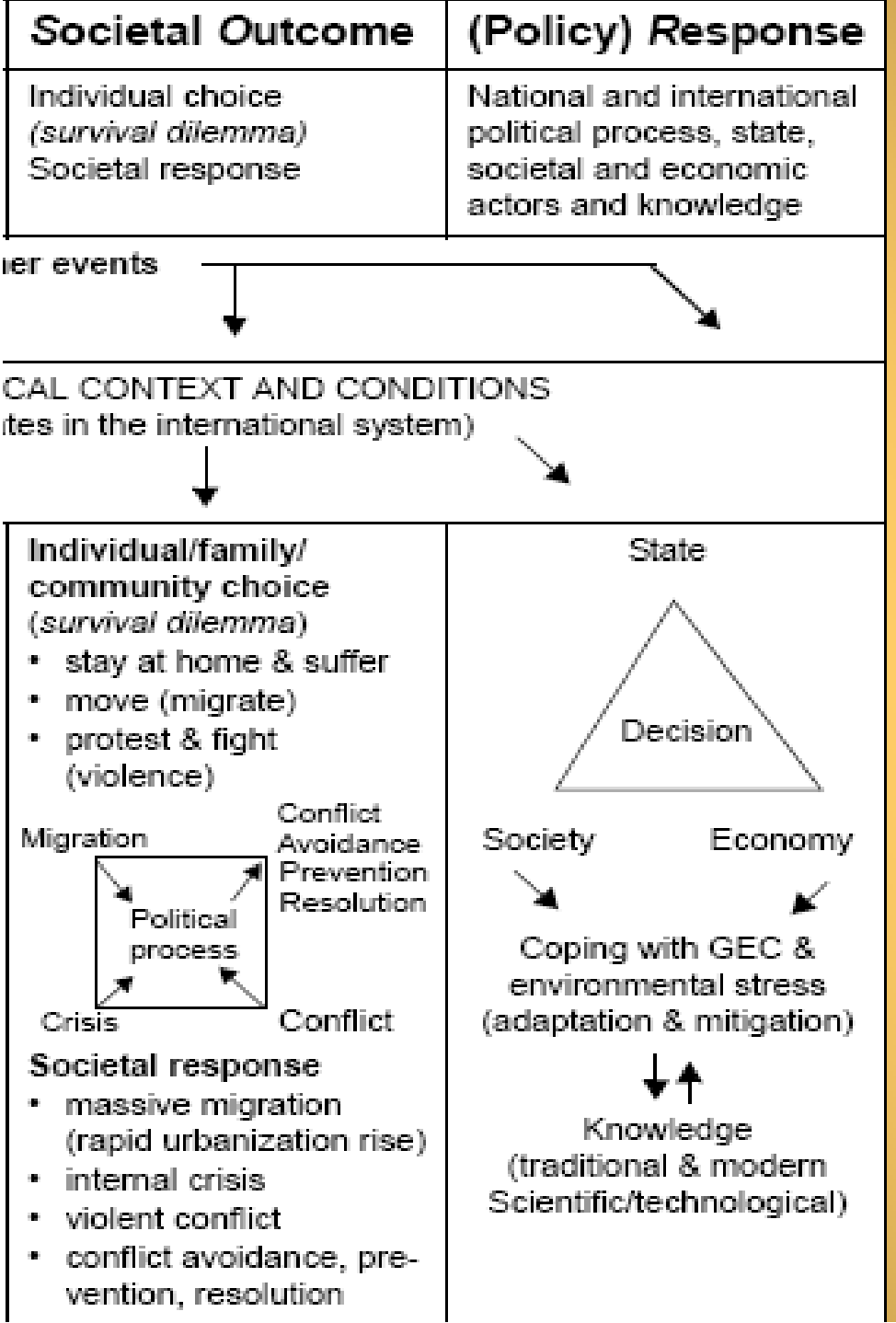
- to cope with their natural and anthropogenic causes and
- to face their societal and political consequences

5. Desertification & Impacts: PEISOR Model



P: Pressure: Interactions of GEC

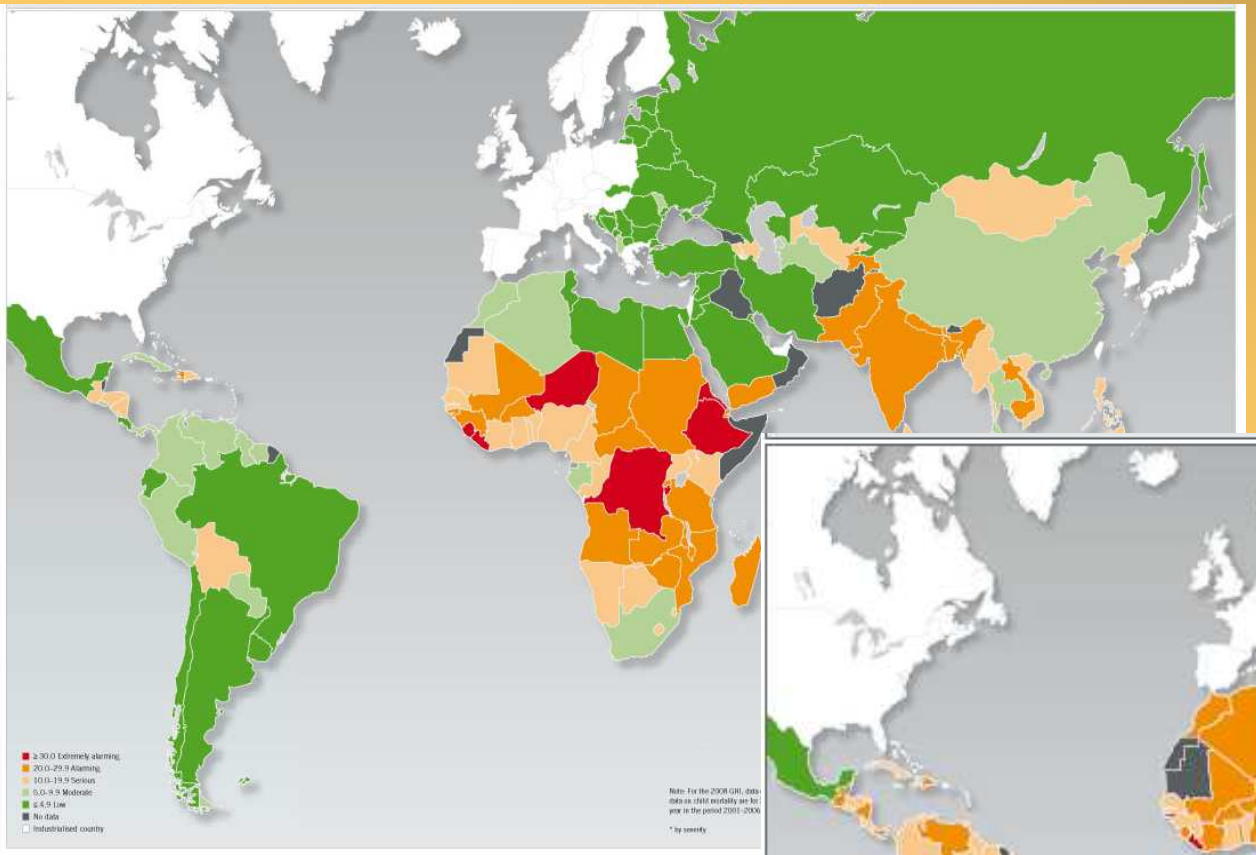




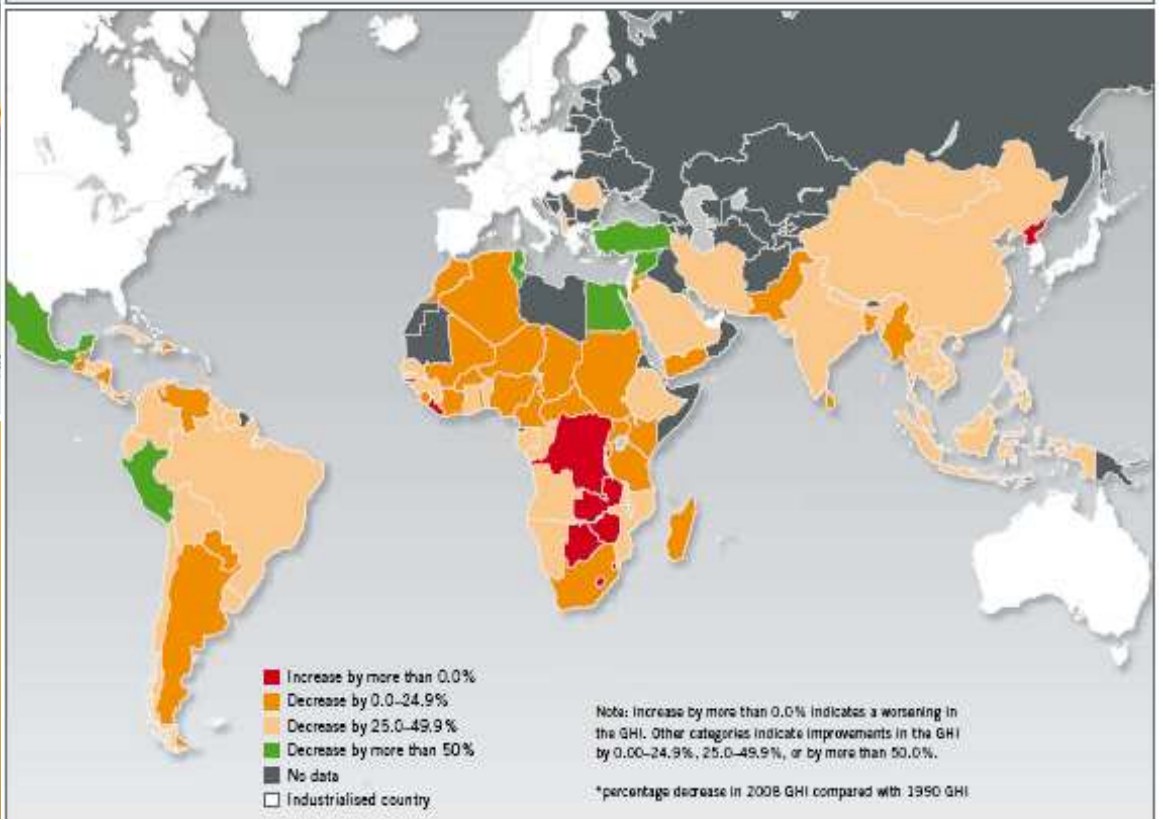
SO: Societal Outcomes

- Individual level (choice)
  - Human security perspect.
  - 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

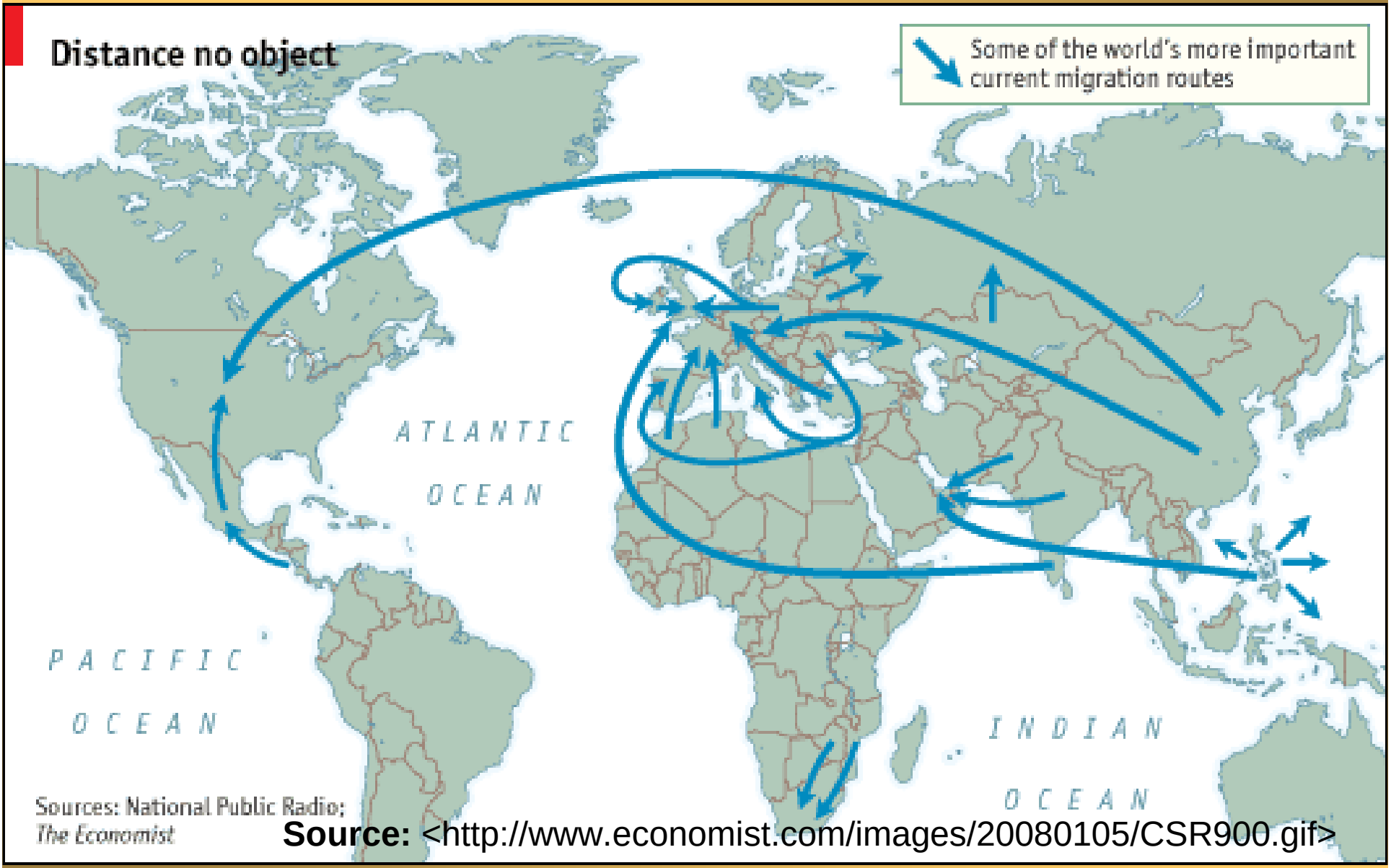


←2008 Global Hunger Index.
Country progress in reducing the Global Hunger Index between 1990 and 2008 ↓



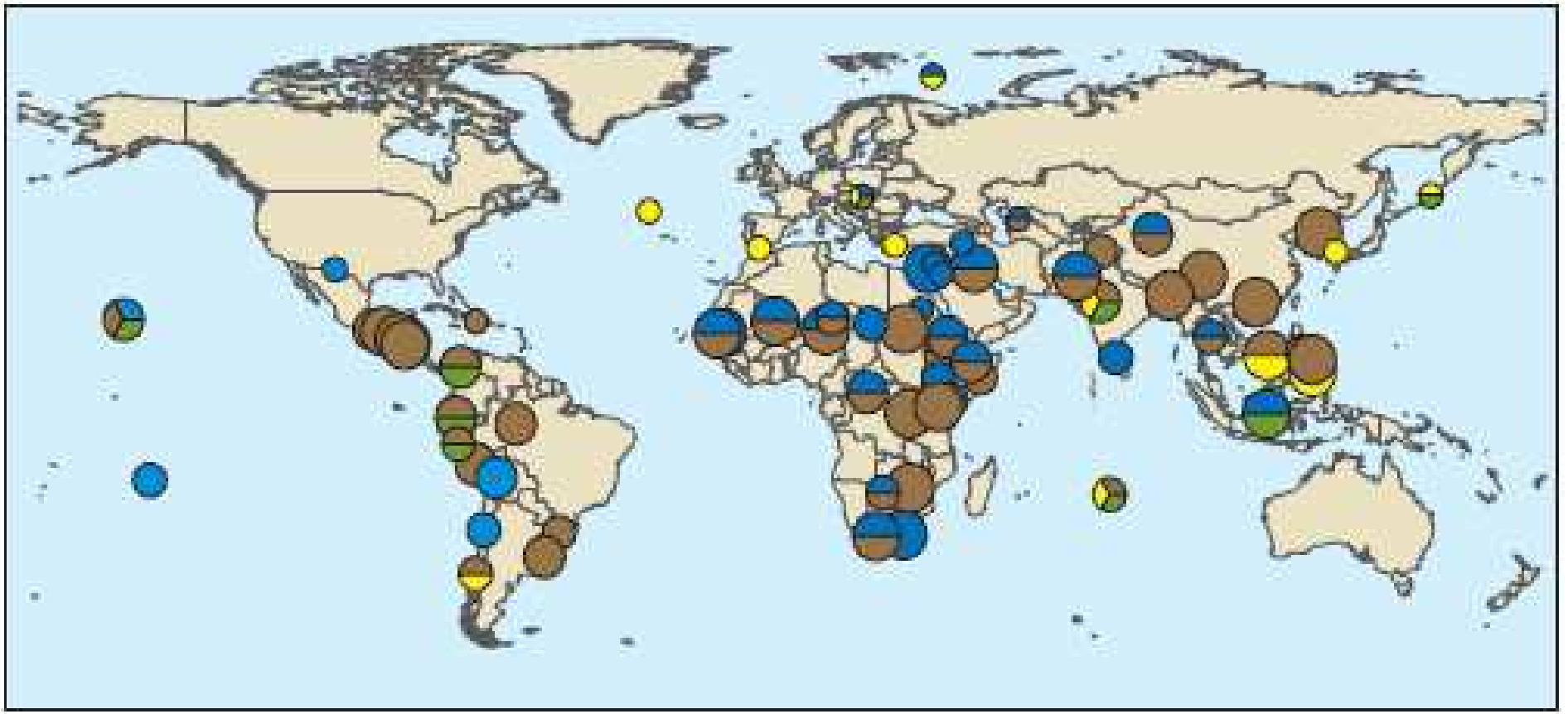
Source: IFPRI, 2008

Migration currents



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

Environmental conflicts (1980-2006)



Source: WBGU (2008: 32)

R:Policy Response to DLDD Dangers

- **How? Responsive vs. proactive action**
  - **Response:** cost of non-action (Stern R.)
  - **Proactive:** anticipatory knowledge, learning, action
- **What? Addressing causes (pressure)**
  - **Earth system:** environmental quartet
  - **Human:** productive/consumptive behavior
- **Responding to Effects & Impacts**
  - **Environmental stress**
  - **Climate-related natural hazards**
- **Dealing with Societal Outcomes**

6. Addressing Causes & Security Impacts of Desertification

- Requires **political strategy** for complex nature-human interactions where emerging global, regional, local risks linked to multiple & simultaneous crises.
- **Involvement** of the state, society, business & academics
- Adopting **proactive response** strategies, policies and measures with best practices, traditional and modern scientific knowledge.
- Focusing on **soil security** may enhance problem awareness on environmental risks for the population and ecosystems.
- **Good governance**, scientific recognition, public awareness requires **anticipatory learning & proactive policies** to mitigate societal impacts & prevent further deterioration & peace-building to negotiate conflicts.

7. Knowledge for Sustainable Peace Actions

- Soil security concept highlights **multiple causes, effects, impacts and societal outcomes** of soil insecurity & contribute proactive policies for grounding security
- **Emerging security challenges** of desertification **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.

Implementing Knowledge to Action Requires

1. Extraordinary Policy Measures for Enhancing Soil Security
2. Demand Side Management and Efficiency Improvements

1. Supplying More Environmental Services and Food with Less Resources
2. Transition to Alternative Livelihoods and Sustainable Economy
3. Responding to and Coping with Environmentally-Induced Migration
4. Avoiding Environmentally-Induced Conflicts with peace-building and preventive diplomacy to achieve sustainable peace

Avoiding Environmentally-Induced Conflicts

- Public awareness, political learning and co-operation.
- Joint North-South anticipatory learning, peace building, multi-disciplinary 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.
- 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.

8. 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
- Preventive Conflict Resolution and Sustainable Peace-building

Achieving Soil, Water, Food Security & Peace for People Most Affected by Desertification

- **Food security & sovereignty** (FAO, Via Campesina).
- **Water security**: Ministerial Declaration of the Second World Water Forum,The Hague (2000)
- **Health security** (WHO,scientific discourse)
- **Jointly soil, water and food security address major related challenges for the people most affected by desertification**
- **Local, regional and national negotiations among sectors to securitize soil and sustainable future.**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