

Mexico 2006  
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Local  
Actions  
for a  
Global  
Challenge



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## Water Scarcity and Degradation Posing a Survival Dilemma

Policy tasks for an integrated water and conflict  
management, prevention and avoidance

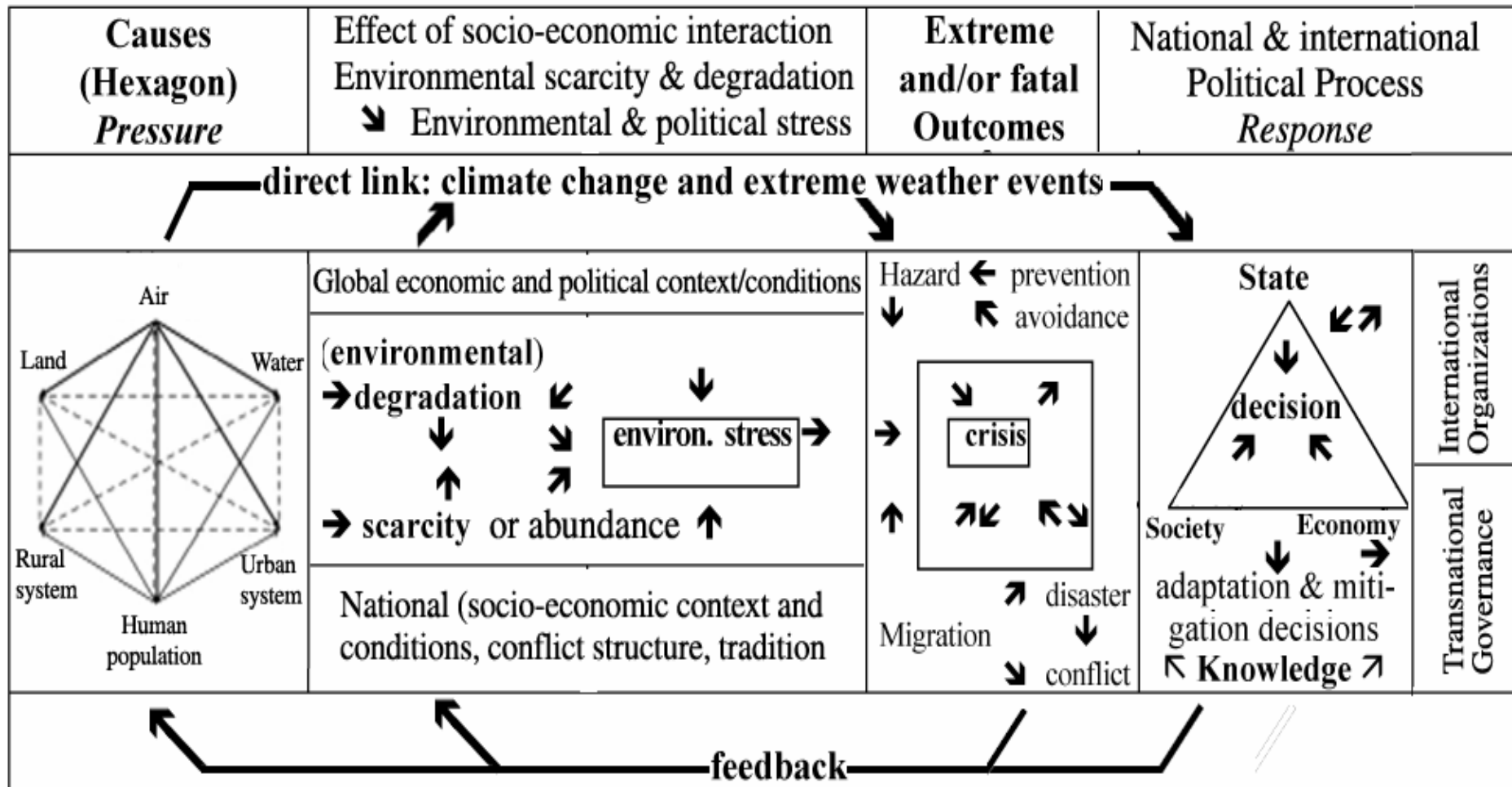
# **Water Scarcity and Degradation Posing a Survival Dilemma.**

**Policy tasks for an integrated water and conflict  
management, prevention and avoidance**

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# 1. PEISOR Model of Global Env. Change



**P: Causes** of GEC („pressure“): Survival hexagon:

**E: Effect:** environmental and water scarcity, degradation & stress influenced by national and global context

**I:** Extreme or fatal outcome („**impact**“): hazards

**S: Societal Outcomes:** disaster, migration, crisis, conflict, state failure etc.

**R: Response:** state, society, economic sector, using traditional & modern knowledge: enhance resilience

## 2. Water Scarcity and Degradation

- ❖ In some cases **Water Scarcity and Water Degradation** have caused manifold security challenges, vulnerabilities and risks at the local, regional and national level (***national security***) as well as for the political, economic (impact of drought on food imports and debt), social and environmental *security dimension*.
- ❖ At the level of the individual (**human security**) these events have in some cases posed a “***survival dilemma***” for those living in poverty with high social vulnerability, to stay at home and to starve to death or to leave to areas where they can obtain food, water and jobs.
- ❖ The competition for scarce water resources has resulted in low-level violence between the migrant herders (pastoralists) and the resident farmers (Kenya).

### 3. Water Scarcity and Degradation has increased Environmental Stress

- ❖ **Hydro-meteorological hazards** (storms, (flash) floods, landslides, drought) have caused, triggered or contributed to **socio-political events, such as hazard-induced internal displacement, migration** to camps, urban centres or abroad.
- ❖ **Drought** has caused food insecurity and hunger riots.
- ❖ **Climate variations** contributed to a collapse of civilizations (Egypt, Maya, Inka) and led to major population movements (Huns, fall of Rome)
- ❖ **Extreme weather events** led to revolutionary situations in 1789 and 1848.
- ❖ **Water scarcity and degradation** and **hydro-meteorological hazards** (extreme weather events) were a cause for both conflict and cooperation within and between states.

# 4. Ecological Security & Survival Dilemma

## Classical definition

Arnold Wolfers (1962), two sides of security:

- ❖ “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:** Absence of “threats”: interest of policy-makers
- **Subjective:** Absence of “fears”: interest of social scientists
- **Intersubjective:** for constructivists: security is what actors make of it.

## 4.1. Environmental Security

### Expanded Concepts of Security (Møller, Oswald)

Label	Reference object	Value at risk	Source(s) of threat
National security	The State	Territ. integrity	State, substate actors
Societal security	Societal groups	Nation. identity	Nations, migrants
Human security	Individ., humankind	Survival	Nature, state, global.
Environmental sec.	Ecosystem	Sustainability	Humankind
Gender security	Gender relations, indigenous people, minorities	Equality, identity, solidarity	Patriarchy, totalitarian institutions (governm., churches, elites) intoler.

**Environmental Security: Referent: Ecosystem; Value at risk is sustainability.**

- ❖ **Major challenges: global environmental change & humankind,**
- ❖ **Focus: Interactions between ecosystem & humankind, impact of global environmental change on environmental degradation, of increasing demand on environmental and water scarcity and water and environmental stress.**



## 4.2. Survival dilemma?

- ❖ "Dilemma": "means two (*di*) assumptions or propositions (*lemma*)". A "dilemma is created where there are two propositions and the existence of ambiguity or uncertainty over which proposition is the best".
- ❖ Any situation necessitating a choice between unpleasant alternatives.

### **Security & environment; Referent: human being**

- ❖ What is the *dilemma* about & what are choices for whom?
- ❖ Whose *survival* is at stake?
  - Humankind or individuals (poor, women, weak, children, old people)
  - ethnic group, family, individual?
- ❖ What is the *referent* ?
  - international anarchy,
  - nation state,
  - society, ethnic/religious group,
  - clan, village, family, individual?
- ❖ What are the choices for human beings?
  - staying at home (die),
  - leaving the home (*fight*).



## **5. Needed Research and Action**

- ❖ Research and action is needed linking the evidence on the coexistence of water scarcity, degradation and hydro-meteorological hazards with migration, violent conflicts but also cooperation.**
- ❖ Integrated water and conflict management**
- ❖ This requires better early warning tools dealing simultaneously with hazards and conflicts but also integrated strategies for water, disaster and conflict management as well as prevention and avoidance**