

# Presentation of the UNCCD Report

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# SECURITIZING THE GROUND, GROUNDING SECURITY

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### 1. Questions of the Talk

- Why are Desertification, Land Degradation and Drought (DLDD) discussed as security issues?
- Does DLDD 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?
- Goal: Develop a combined soil, water and food security for the people most affected by DLDD

# **Key Thesis of the Talk**

"Poor soils result in poor people. We take the land for granted" (Luc Gnacadja). About 1.4 billion people in 110 countries suffer from desertification, land degradation and drought

# 2. Policy Context: Multiple Crises & Their Causes

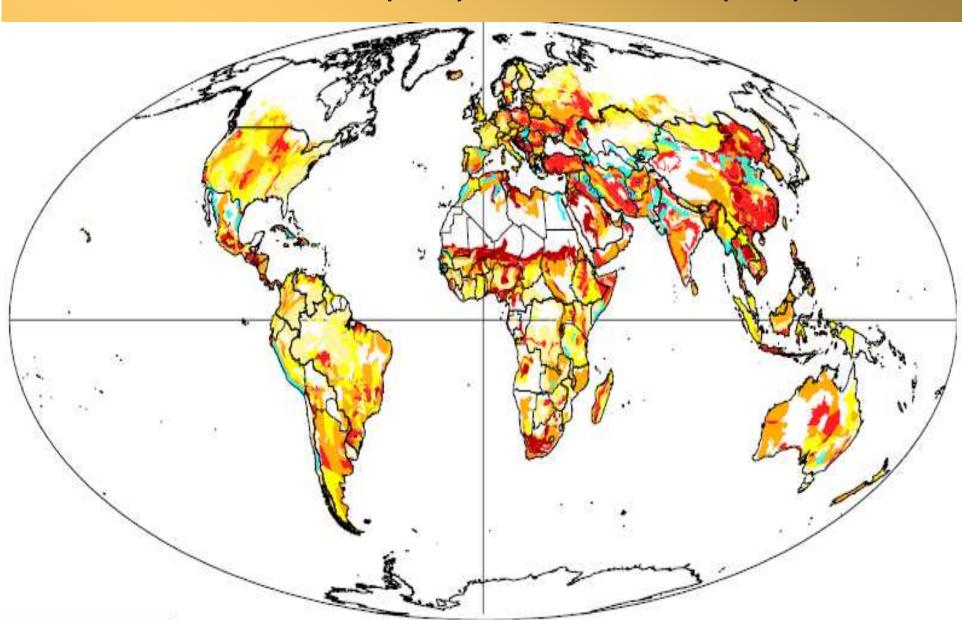
- 1. Financial/economic crises: collapse of banks, insurance, companies, decline in GDP, wealth and remittances of migrants, increase in unemployment; public bailout 4.1 trillion US\$ (April 2009).
- 2. Population Growth: last century from 1.6 to 6.1 billion and water consumption increased six fold; until 2050 projected to 9 billion, mostly in drylands in poor countries.
- 3. Water Security: By 2025, 2.8 billion people in 48 countries will face water stress due to scarcity, overexploitation of aquifers, pollution & salinization (40 in West Asia & Africa).
- 4. Climate Change by 2100: temperature increase 1.1 to 6.4°C; 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).
- 5. Food Crises: One billion of people suffer from hunger today; food price rise provoked 44 million more hungry & 110 million people were driven into poverty. MDG cannot be reached affecting above all rural and urban poor.

## **DLDD** as a Challenge to Humankind

- No agreement on extension of drylands and land affected by Drought, Land Degradation and Desertification (DLDD): 33-41% of the Earth.
- Anthropogenic & climate change creates a vicious circle of drought, forced migration, political crises and conflicts with threats for human, national and international security, aggravated further by:
  - poverty (overgrazing, overexploitation and land use change)
  - market-driven expansion of agricultural production and
  - depletion of aquifers in drylands and salinization of land.
- Desertification costs: US\$ 42 billion/year (Africa: US\$ 9 billion/year).

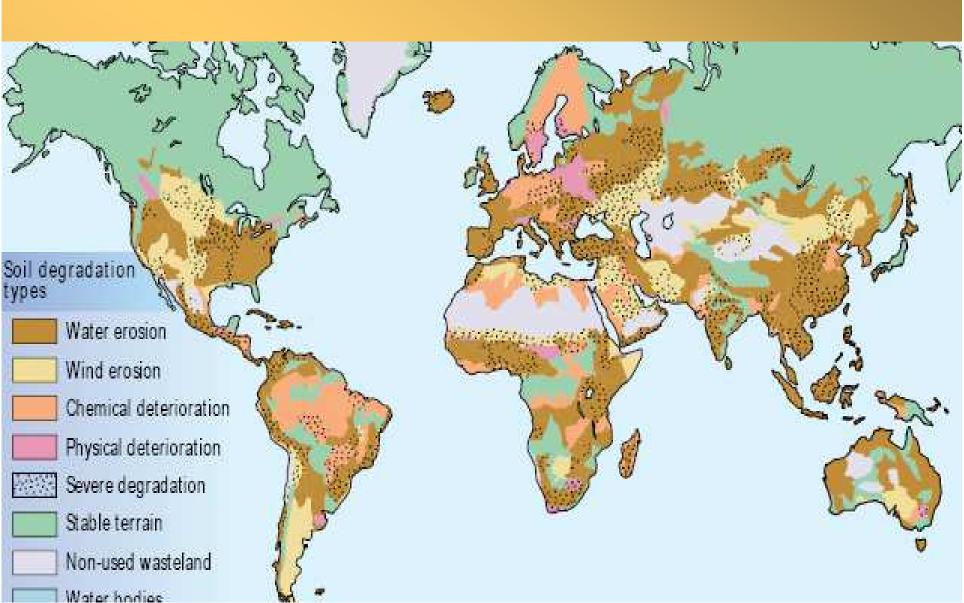
### Global soil degradation (% affected area)

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



## **Human-induced Soil Degradation**

Source: ISCRIC-UNEP (1996: 12)



### Interactions of GEC

Reduced carbon sequestration above & below grand carbon reserves

#### CLIMATE CHANGE

global temperature increase climate variability

> reduced carbon reserves & increaased CO2

Desertification Land Degradation & Drought



Reduced primary production & nutrient cycling

droughts

urbanization in drylands

land degradation



compactation of soils



water erosion

decrease in organic matters in soils

mining activities

BIODIVERSITY LOSS

Mitigation &

Adaptation

decreased land & soil organism' species diversity

land use change

reduced soil

conservation

fauna loss

plant diseases & resistance

salinization sodification

aguifer depletion

lack of water and food

change in community structure & ethnic diversity

poor irrigation

watershed degratation

accumulation of toxic substance in water & soil

increase of social vulnerability, poverty

extreme weather events

sea level rise

pollution

rainfall variability

WATER STRESS

gender vulnerability & survival strategies

migration urbanization slums

forest fires

land slides

hydro meteorological disasters

# 3. Addressing DLDD: 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) first global assessment of soil degradation.
- TerrAfrica scaling up 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 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), International Geophysical and Biological Programme (IGPB), biodiversity (DIVERSITAS), and IHDP.
- No science programme on soil issues and 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).
- 2007: debate of the Security Council on Climate Change recognized DLDD issues within climate related security risks.
- UNCCD lacks a report on the potential costs of nonaction for DLDD (Stern Report).

## 4. Security and Securitzation

- Which Security? Security for whom? (referent object); security of what? (endangered values); security from whom? (sources of fear)
- "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 security is intersubjective or refers to "what actors make of it".
- "Securitization": is a political process where a danger is declared as an "existential threat" that requires extraordinary political measures.
- The threat is posed by us (our socioeconomic behaviour) and the impact of anthropogenic climate change.
- Goal is not militarization of the environment but the demilitarization of the environmental dimension of human security!

# Securitizing the Ground (Land, Soil) Grounding Security

- Spain & UNCCD launched process of securitization of DLDD (Almería 1994, 2006; Valencia 2003/07)
- Present study:
  - Securitizing the ground creates a wider global political awareness for DLDD and its societal consequences, as a key international political problem by upgrading it as a security issue.
  - Grounding security includes reactive/proactive short and long-term strategies for mitigation and adaptation to soil insecurity and its consequences.

# **New Soil Security Concept**

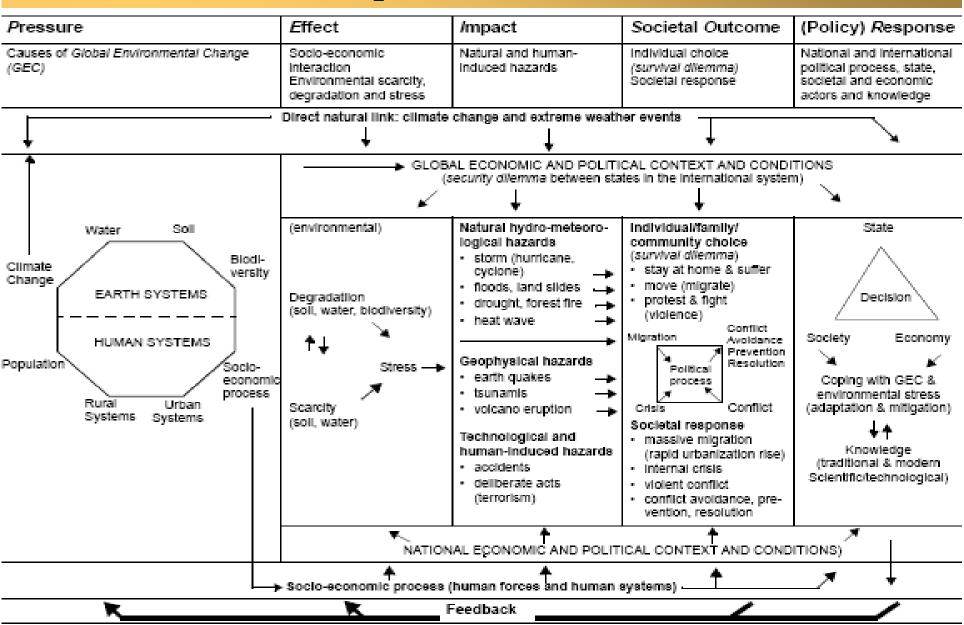
### Soil security is threatened by

- the spatial expansion of drylands
- the severe degradation of soils and related fertility and biodiversity loss due to geophysical, wind and water erosion
- drought resulting in crop yield decline
- DLDD has triggered severe periods of famine

### Soil security is achieved when efforts succeed

- to conserve/ restore soil fertility
- to contain land degradation and combat desertification
- to reduce consequences of drought by improving livelihood
- Soil security can be analysed from the perspective of state, human, gender and environmental security referring to
  - loss of soil capacity for regulating & storing water
  - depletion of aquifers for drinking and irrigation affecting the survival of people at risk

## 5. DLDD & Impacts: PEISOR Model

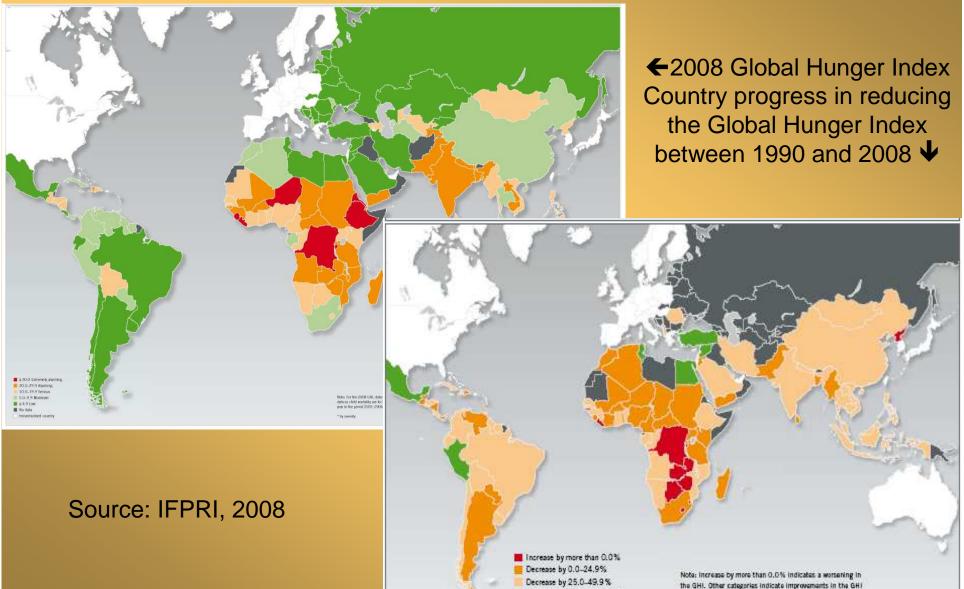


#### Societal Outcome (Policy) Response Individual choice National and international (survival dilemma) political process, state, societal and economic Societal response actors and knowledge ier events. CAL CONTEXT AND CONDITIONS ites in the international system) State Individual/family/ community choice (survival dilemma) stay at home & suffer move (migrate) Decision protest & fight (violence) Conflict: Migration Society Economy Avoidance: Prevention. Resolution Political. Coping with GEC & process environmental stress Conflict. (adaptation & mitigation) Crisis: Societal response massive migration Knowledge (rapid urbanization rise) (traditional & modern internal crisis Scientific/technological) violent conflict · conflict avoidance, prevention, resolution

# Societal Outcomes

- Hunger, famine
- Migration to urban slums
- Rural-rural migration
- Transborder migration
- Crises: domestic
- Conflicts:
  - Peaceful protests
  - Violent clashes
- Complex emergencies

### Global Hunger Index 1990 & 2008



Decrease by more than 50%

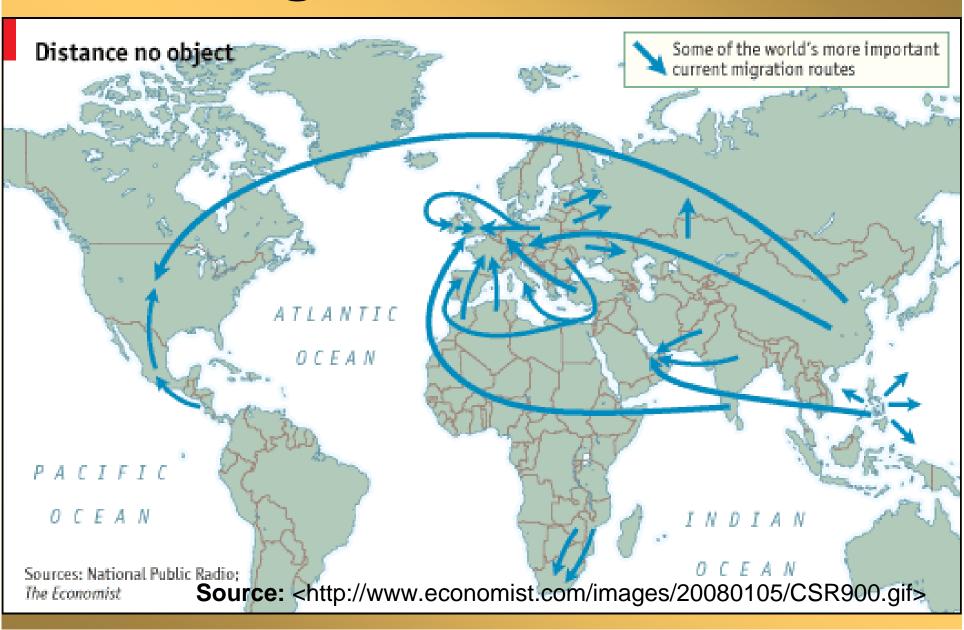
Industrialised country

No data

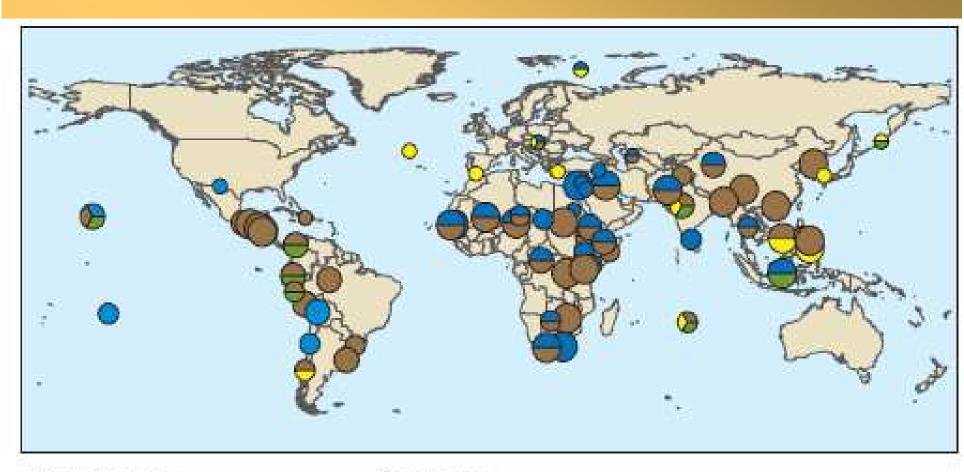
by 0.00-24.9%, 25.0-49.9%, or by more than 50.0%.

\*percentage decrease in 2008 GHI compared with 1990 GHI

## **Migration currents**



## Environmental conflicts (1980-2006)



# Conflict intensity Diplomatic crisis Protests (partly violent) Use of violence (national scope) Systematic/collective violence



Historia supplies

**Source:** WBGU (2008: 32)

# 6. Addressing Causes & Security Impacts of DLDD

- Requires political strategy for complex nature-human interactions where emerging risks are linked to multiple & simultaneous crises
- Involving the state, society, business & academia
- Adopting proactive response strategies, policies and measures with best practices, traditional and modern scientific knowledge
- Focusing on soil security to enhance problem awareness on environmental risks for people and ecosystems
- Requiring anticipatory learning & proactive policies to prevent further deterioration & mitigate soc. impacts

## 7. From Knowledge to Action

- Soil security concept highlights causes, effects, impacts and societal outcomes of soil insecurity & 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.

# Implementing Knowledge to Action Requires

- 1. Extraordinary Policy Measures for Enhancing Soil Security
- 2. Demand Side Management and Efficiency Improvements
- 3. Supplying More Environmental Services and Food with Less Resources
- 4. Transition to Alternative Livelihoods and Sustainable Economy
- 5. Responding to and Coping with Environmentally-Induced Migration
- 6. Avoiding Environmentally-Induced Conflicts

# Extraordinary Policy Measures for Enhancing Soil Security

Securitizing the ground with policy measures:

- prevent weakening livelihood of affected, often poor people in developing countries
- support of financial and administrative capacities by well-equipped state
- supplying more environmental services and food with fewer resources
- developing alternative livelihoods in drylands
- responding to/coping with environmental migration & conflicts

# Demand Side Management and Efficiency Improvements

- river basin management, flood protection & reforestation
- recovering mountain ecosystem: erosion control, water harvesting, soils and biodiversity conservation, disaster mitigation in lower-lying densely populated areas
- in river plains & valleys: sustainable, participative land
   planning for agriculture, life-stock & urbanization
- long-term monitoring desertification indicators needs information on land and water degradation trends & complex interrelationships with human activities
- field studies on natural, human, societal, cultural and historic conditions in drylands

# Transition to Alternative Livelihoods and Sustainable Economy

- Decentralized governance: traditional knowledge from women, peasants, grassroots movements against desertification
- Consolidation of local leadership (clergymen, spiritual leaders, doctors, lawyers, schools, teachers) and training (old/young people, migrants)
- Off-farm jobs create financial resources to recover degraded land and feed people
- Concrete Action Programmes to prevent migration, crises and conflicts

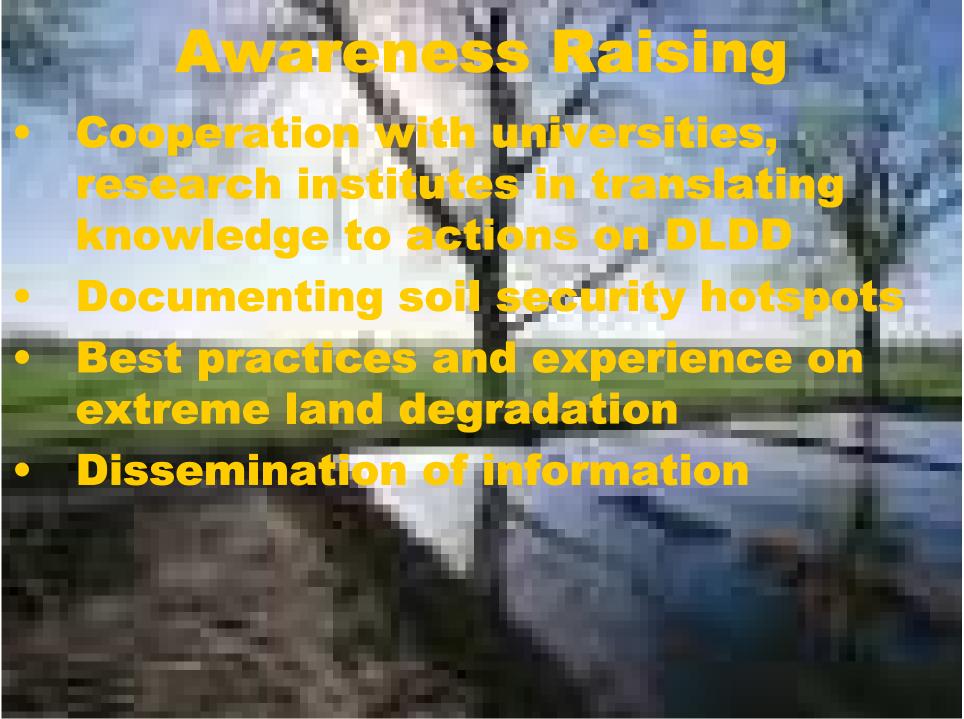
# **Avoiding Environmental Conflicts**

- Anticipatory learning, peace building, multidisciplinary search for action-oriented strategies to cope with root causes and socioeconomic implications.
- 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 for soil security & reduces costs of coping with consequences.

# 8. Policy Recommendations

UNCCD pursues 5 operational objectives in its 10 years strategy (2007):

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



## **Policy Advocacy**

- Expert community on DLDD to foster cooperation between science and policy making on soil security issues.
- UNCCD with FAO, UNESCO, WHO, WMO, UNDP, UNEP, UNU, UNSO, OSCE, NATO, IUCN & CGIAR to prioritize soil security for sustainable dryland management.
- International workshops on practical experiences for territorial governance.
- Pro-active strategies to counter DLDD with rural production, renewable energy or ecotourism.
- Countries affected by DLDD may enact legislation on soil security for sustainable agricultural and land management practices.

# **Capacity Building**

- Strengthening traditional and innovative knowledge for embedding assessment of levels of soil security into environmental impact & risks assessment, land use planning and environmental auditing. Training on best practices for conflict settlement mechanisms should be
  - provided at the sub regional and national levels and linked whenever relevant to the adjustment process of UNCCD National Action Programmes.

# **Channelling Resources**

- International financial organizations and national donors improve policies for soil security
- Climate related finance mechanisms for affected rural areas
- Local development programmes and economy of solidarity promoting sustainable livelihood and off farm income generation (micro credit, insurance & land use micro investments) for vulnerable groups at risks of social destabilization due to DLDD.



- Food security & sovereignty: FAO
- Water security: Declaration of the 2nd World Water Forum (The Hague, 2000)
- Health security: WHO
- Jointly soil, water and food security address major related challenges for the people most affected by DLDD.

