



Bundesministerium  
für Umwelt, Naturschutz  
und Reaktorsicherheit

**„Umwelt und Sicherheit“  
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(Kooperation mit OECD-Mitgliedsstaaten;  
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# Overview Presentation

- I. Intro: Scoping „Environment and Security“ ...
- II. Recent Events - growing importance ...
- III. Sectoral dimensions + regional examples
  - Climate Change
  - Energy
  - Water
  - Further selected natural resources
  - Nature protection and landscape
- IV. Selected Policy Processes
- V. Conclusions

I. I.

# Scoping "Environment and Security"

# Scoping ...(1)

1. „*Pressure Dimension*“: disputes about environmental degradation and natural resources may cause or strengthen conflicts in various formats
2. „*Response Dimension*“: environmental cooperation at (multilateral) regional or (bilateral) transboundary level may work as „catalyst“ for confidence building processes between countries in tension or post-conflict states

## Scoping ...(2)

**3. „Greening the army approach“: environmental management, procurement, maneuver, education etc. (NATO/CCMS studies);**

- **recently: 3rd Seminar „Sustainable Building for Military Infrastructure“, Oslo, 21 – 23 September 2005**

**<http://www.nato.int/ccms/index.html>**

- **cooperation agreement „peacekeeping and sustainability“ between Ministry for Environment (Rheinland-Pfalz) and German Army, in particular on education and environmental management (2004)**

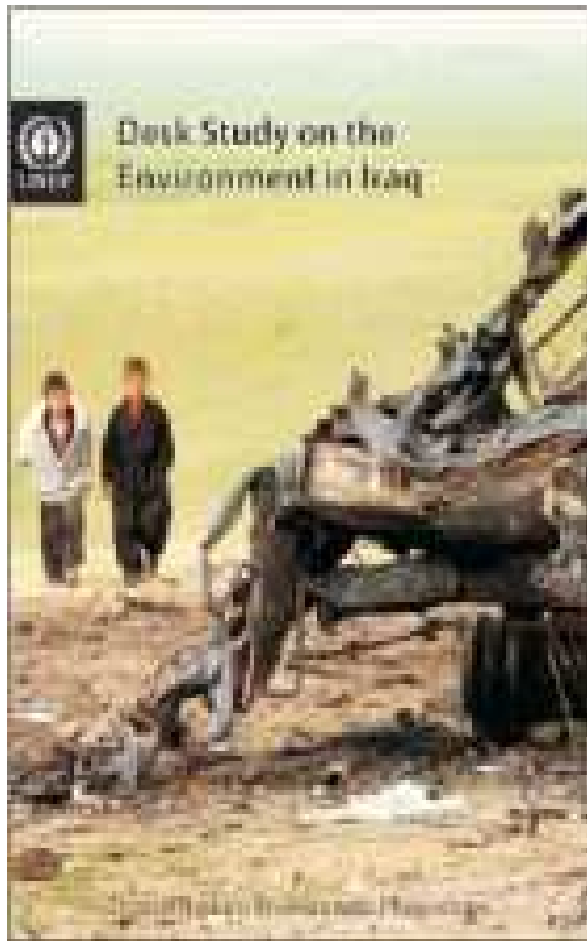
## **Scoping ... (3)**

- 4. Environmental risks and damages caused by wars and military operations:**
  - Post-conflict environmental assessments by the UNEP/PCEAU:  
<http://postconflict.unep.ch/>**
  - Potential risk for man and environment**
  - land degradation, dangerous waste etc. (in particular former SU),**

# UNEP / PCAU

- The Post-Conflict Assessment Unit (PCAU) extends UNEP's work in areas of the world where the natural and human environment has been damaged as a direct or indirect consequence of military conflict
- **Current Activities:**
- [Afghanistan](#)
- [Iraq](#)
- [Liberia](#)
- [Occupied Palestinian Territories](#)
- [Cooperation with the United Nations Compensation Commission \(UNCC\)](#)
- [Depleted Uranium](#)

# UNEP / PCAU



- UNEP/PCEAU missions include international and national experts, capacity building
- All Studies can be fully downloaded from the web;

# Scoping ... (4):

## 5. Environmental Warfare

- Study on „Legal Regulation of the Effects of Military Activity on the Environment“ (October 2003)
- Author: Daniel Bodansky (in English only), Umweltbundesamt, Berichte 5/2003 ISBN3-503-07819-3
- UNEP-Montevideo III Programme
- 6 November 2003, Statement of Klaus Töpfer, „International Day for Preventing Exploitation of the Environment in War and Armed Conflicts“: „If There Must Be War, There Must Be Environmental Law“

[http://www.bmu.de/english/international\\_environmental\\_policy/doc/4940.php](http://www.bmu.de/english/international_environmental_policy/doc/4940.php)

- **EXISTING LAWS NOT SUFFICIENT TO ADDRESS DANGER POSED TO ENVIRONMENT BY CONFLICT,**  
**(Kofi Annan)**

<http://www.un.org/News/Press/docs/2003/sgsm8988.doc.htm>

II.

Recent Events

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Growing Importance

**Wangari Maathai:** “Many wars are fought over natural resources, which are becoming increasingly scarce across the earth. If we did a better job of managing our resources sustainably, conflicts over them would be reduced. Protecting the global environment is directly related to securing peace”



**Wangari Maathai receiving her Nobel Prize from Ole Danbolt Mjøs, Chairman of the Norwegian Nobel Committee.**

# Kommunikationsstrategie ...

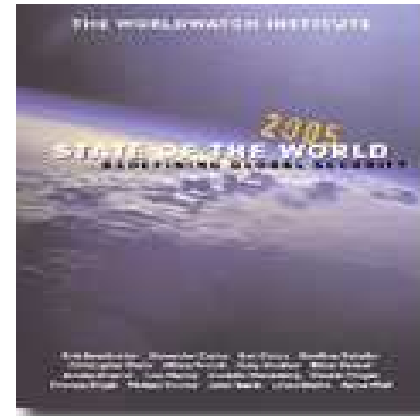
**An Abrupt Climate  
Change Scenario and  
Its Implications for  
United States National  
Security**

**Imagining the  
Unthinkable: “slowing  
of the ocean’s  
thermohaline conveyor”:  
By Peter Schwartz and  
Doug Randall Pentagon  
Commissioner  
October 2003**



# The World Watch Institute: State of the World 2005 – Redefining Global Security

- „peace dividend“ after the end of cold war was not realized;
- global war on terror is diverting the world's attention from the central causes of instability;
- nine chapters bring together facts and options for action;
- German version 2005;  
<http://www.worldwatch.org/pubs/sow/2005/>



- Worldwatch President Christopher Flavin: **"Poverty, disease, and environmental decline are the true axis of evil"**

# „Zur Lage der Welt 2005. Globale Sicherheit Neu Denken“

<http://www.germanwatch.org/pubdiv/zldw2005.htm>



# **UN High Level Panel on Threats, Challenges and Changes: "A more secure world: Our shared responsibility,, (December 2004)**

- **Analysis of threats in terms of security;**
- **101 recommendation how to act including institutional changes of the UN**
- **threats caused by poverty, spread of infectious diseases and environmental degradation shall to be linked with security challenges, in particular prevention, and require new security policy approaches**
- **urgent need to integrate environment and development policies in foreign and security policies**
- **global warming and international and transboundary use of limited natural resources such as oil, gas, water and timber have important security impacts**

<http://www.un.org/secureworld/>

III.  
III.

**Sectoral dimensions**

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**regional examples**

# **Global Warming / „Pressure“ (1)**

- **Climate change: 1,4 – 5,8 C 1990-2100; + 0,6 C above pre-industrial level; wide variety of impacts:**
- **Scarcity of freshwater, arable lands will be reduced, rising sea levels, extreme weather events;**
- **Greatest vulnerability in developing countries (increasing population growth); but also developed countries will be affected**
- **Security dimension of climate change not yet appropriate addressed: UNFCCC, IPCC vs. UNEP Ex. Dir. Klaus Töpfer, studies on behalf of Pentagon**

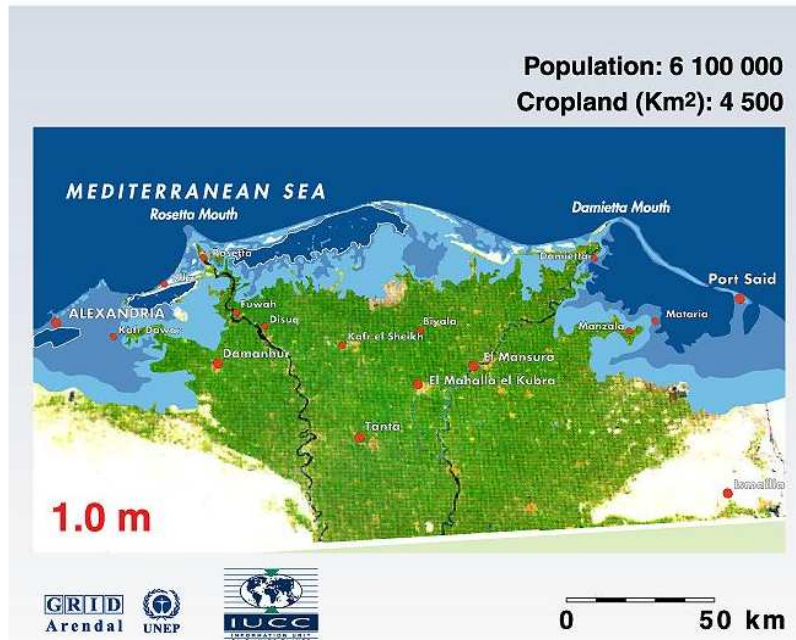
# **Global Warming / „Pressure“ (2)**

- **Movie „The Day after Tomorrow“ (W. Emrich) has brought some sensitivity to the people;**
- **Most important security risks are uncontrolled „Environmental Refugees“ streams**
- **Environmental Refugees: “Those people, who have been forced to leave their traditional habitat, temporarily or permanent, because of a marked environmental disruption (...) that jeopardized their existence and/or affected the quality of their life” (El-Hinnawi); other terms: environmental migration, distress migration**

## **Global Warming / „Pressure“ (3)**

- **No legal definition, no clear numbers: 25 Million Environmental Refugees have exceeded civil war migration (N. Myers); UNEP: 20-24 Million per annum (including in-country migration)**
- **UNHCR: environmental related migration until today 1 Billion people, by desertification 135 Million; covered by official mandate: 21 Million people 5**
- **Affected regions and countries are in particular (at present or in future) Sahel, Mahgreb, Egypt, Bengal**
- **Empirical evidence of actual environmental refugees**

# Effects of Climate Change for Egypt & Nile Delta (Brauch)



**Global Climate Change: Sea level rise: 1860-2100**

**IPCC, TAR, WG 2 (2001):**

**Sea level rise 1860-2000: 0.1 – 0.2m; Sea level rise: 1990-2100:+ 0.09-0,88 m**

**Climate Change Impacts: Egypt:**

- Nil Delta: 50cm, 2 mio. persons, 214.000 jobs
- Temperature Cairo to 2060: + 4°C
- Yield decline for wheat: 2050: - 18%

# **Global Warming / „Response“ ...**

- **Need for an agreed overall goal – not more than 2 degrees – which shall determine international negotiation processes such as 2nd phase of the Kyoto-Protocol**
- **Window of opportunity will close in fifteen years**
- **Discussion on „Adaptation“ on climate change: early warning on conflict potentials and accompanied measures to prevent, in particular caused by uncontrolled refugees streams;**
- **Are there opportunities to create „migration channels“ ?**

# Energy / „Pressure“

- **65 % of world oil-reserves are located in fragile countries in Middle East; further fragile countries are involved, „war for oil“(?);**
- **dependencies on oil hinders development,**
- **cost-explosion, strong growing oil demand of BRIC countries;**
- **various security risks by nuclear power: proliferation of uranium, terrorist attacks, final disposal unsolved; „ecoterrorism“-project within NATO/CCMS**

# **Energy / Response: *Three Pillars of the German Energy Move***

- 1. „Peace Dividend“ by Renewable Energies: Emerging role world wide, „renewables 2004“ (Bonn) and follow-up („International Action Programme“), German targets, developing countries.**
- 2. Promotion of techniques „beyond petrol“ or breaking away from oil by promoting energy-efficiency and energy-saving.**
- 3. Phasing out nuclear power: Nobel Peace Prize 2005 for Mohammed El Baradei and IAEA; congratulation letter October 2005**

# **Water / „Pressure“**

- **Lack of evidence to confirm „wars for water“ despite Dharfur, Ethiopia/Eritrea or Iraq/Syria, however:**
- **Population and water demand in water scarce countries will grow, in particular for irrigation (domestic food supply, export );**
- **263 transboundary river basins world wide; numerous patterns of conflict between upstream and downstream countries such as over consumption, dams, water power station, pollution, water-based deseases, industrial accidents, floods and draughts;**

# Water / Reponse

- **„Petersberg-Process“ on transboundary river basin cooperation (initiated by Germany and World Bank) has synthesized recommendations and good practices“;**
- **Transboundary river basin cooperation can be used for confidence building and peace processes: Balkan Stability Pact (Regional Environmental Restruction Programme), Mekong and other examples of river basins;**
- **Two third of transboundary river basins have various formats of cooperation; evident lack in Africa and NIS (e.g. Central Asia: Syr-Darya, Amu-Data).**

# Accession process of Turkey: Transboundary rivers will become an issue within the European Water Framework Directive



# Further examples of transboundary water cooperation

- International Commission for the Protection of the Danube River includes 16 countries with tremendous economic, political, social and environmental differences but work as „Best Practice“
- New initiative „International Sava Commission“
- "Water for Life in the Middle East,, (Israel, Jordan, Palestine), 2nd conference in Antalya (Turkey), 10-14 October 2004: intensive dialogue including will to agree, fair sharing of limited water resources, final statement to governments and international organization to address solutions beyond the peace process; (*Israel/Palestine Center for Research and Information*, <http://www.ipcri.org/>)

# Coruh / Kura-Araks River Basin:



# **Transboundary cooperation for hazard prevention in the Kura-river basin**

- **The German project “Development of the transboundary cooperation for hazard prevention in the Kura river basin” brings together policy maker and experts from Azerbaijan, Armenia and Georgia.**
- **Beside many activities, an inventory of potential risky industrial sites were worked out.**
- **Recently, Turkey and Iran were invited to join the project.**
- **More: [http://www.kura.iabg.de/seminare\\_engl.htm](http://www.kura.iabg.de/seminare_engl.htm)**

# Transboundary cooperation for hazard prevention in the Kura-river basin



- **Aserbaidshan:** textile processing (river – Alasani/ Kura)  
oil refining  
power supply (river Kura)
- **Armenia:** chemical industry (river Razdan – Araks)  
chemical industry (river Debed – Kura)  
mineral processing (river Debed – Kura)
- **Georgia:** chemical industry (river Kura)  
rail body processing (river Kura)  
mining industry (river Maschawera – Kura)

# Further selected natural resources

- **„Warlords“ in fragile and failed states, financed by overexploitation of natural resources such as diamonds, minerals such as coltan, tropical timber, drugs, ivory: need for initiatives to identify and to combat those activities (e.g. „Kimberley-Process“);**
- **Fishery: two third of worldwide fish resources are caught unsustainable, overexploitation, growing demand in future, weak international agreements, „wars for food“ conceivable in some areas of the fishery sector.**

# **Nature protection and landscape**

- **„Pressure“ issues cause conflicts on the local and regional level such as illegal logging, illegal hunting;**
- **Indigenous people are mostly affected;**
- **New strategy to promote transboundary cooperation and to establish „parks for peace“**
- **A further strategy to support confidence building and peace processes; examples**

IV.  
IV.

Selected

Policy Processes

# Examples for Transboundary Cooperation

- **Transboundary nature protection areas in Southern Caucasus**
- **TRANSBOUNDARY COOPERATION IN PROTECTED AREAS IN THE BALKANS (IUCN)**
- **SIACHEN PEACE PARK GAINING MOMENTUM: Transboundary Peace Park between India and Pakistan (IUCN)**
- **"Congo Forest Basin Partnership" (WSSD Type II Project, USA and other countries)**
- **„Parks for Peace“ in Southern Africa: Peace Park Foundation, <http://www.peaceparks.org/>**

- TFCAs involving South Africa
- Southern African TFCAs

OVER 120 MILLION  
HECTARES  
ENVISAGED

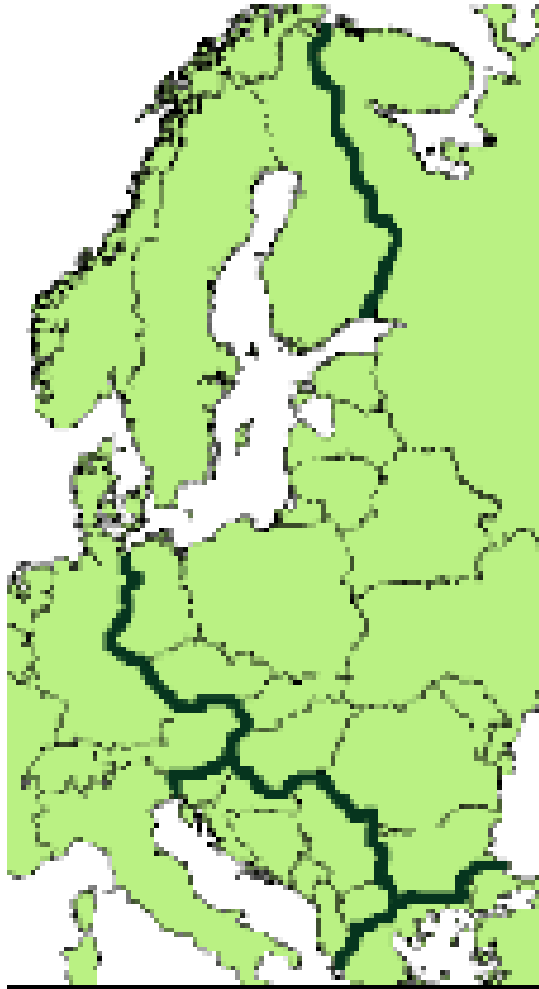


- TFCAs INVOLVING SOUTH AFRICA**
- 1 Jhu Day'sfontein Transfrontier Park (Botswana / South Africa)
  - 2 National Transborder Park (Botswana / South Africa)
  - 3 Limpopo Transborder Park (Botswana / South Africa / Zimbabwe)
  - 4 Great Limpopo Transborder Park (Mozambique / South Africa / Zimbabwe)
  - 5 Maple Dam Transborder Conservation and Development Area (Lesotho / South Africa)
  - 6 Lubutu Transborder Conservation and Research Area (Mozambique / South Africa / Swaziland)

- SOUTHERN AFRICAN TFCAs**
- 7 Lesa-Namba Coast TFCa (Angola / Namibia)
  - 8 Lesa-Namba / Karoo TFCa (Angola / Zambia)
  - 9 Central Okavango Transborder (Zambia / Botswana / Namibia / Angola / Zimbabwe)
  - 10 Lower Limpopo River Park TFCa (Zambia / Zimbabwe)
  - 11 Maloti - Lesotho TFCa (Malawi / Lesotho)
  - 12 Mosi-oa-Tunya TFCa (Mozambique / Zimbabwe)
  - 13 Great Limpopo Transborder Parks Conservation Area (Mozambique / Zimbabwe)
  - 14 Okavango TFCa (Mozambique / Zimbabwe)



# TURNING THE IRON CURTAIN INTO THE EUROPEAN GREENBELT (IUCN-Project)



- transboundary international network
- IUCN Europe Office and German Federal Agency for Nature Conservation
- project is already developed in Germany, and Norway/Finland/Russia

# European Union

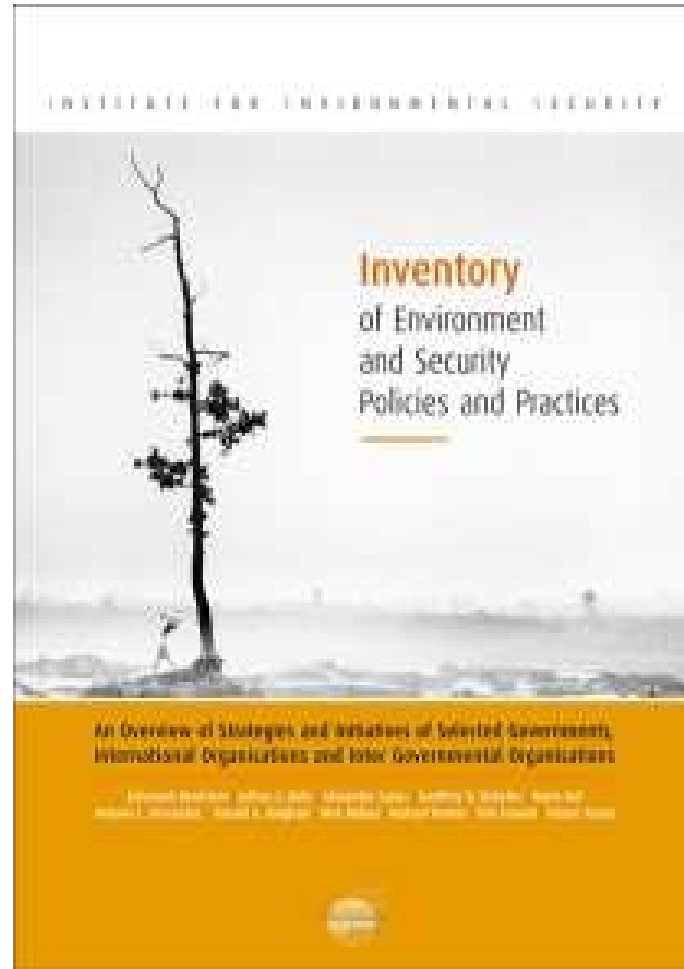
- **European Security Strategy „A Secure Europe in a Better World“ (2003): interpretation and clarification of some terms (natural resources, global warming, migratory movements);**
- **Communication from the Commission on „Conflict Prevention“ (2001): strategic paper, including environmental degradation and environmental cooperation**

[http://europa.eu.int/comm/external\\_relations/cfsp/news/com2001\\_211\\_en.pdf](http://europa.eu.int/comm/external_relations/cfsp/news/com2001_211_en.pdf)

# **Initiative: Stärkung Umweltschutz in der Europäischen Sicherheitsstrategie**

- **EU-Kommission: Analyse Europäischer Programme im Hinblick auf Schnittstellen;**
- **Deutschland (BMU in Kooperation mit AA und BMZ): Aktivitäten der EU-MS, Konferenz Regierung/Zivilgesellschaft März 2007, Regierungskonferenz Mai 2007;**
- **Institute for Environmental Security et al.: „Greening Foreign and Security Policy“: u.a. Vorbereitung einer Resolution des Europäischen Parlaments**

<http://www.envirosecurity.org/ges/inventory/>



# Status OECD MS / International Organisation

- Inventory of Environment and Security Policies and Practices (IESPP): 13 countries, 7 International Organizations
- This report provides an easy to use comparative overview of existing governmental and inter-governmental positions and actions dealing with the relationship between environment, security and sustainable development.
- The IESPP report illustrates how the selected governments / IGOs have addressed their stated environmental security priorities through various policies, programmes and projects with respect to eight key themes.

# Germany: Action Plan on Civil Crisis Prevention 2004

- **strategic question: combining all issues of the extended security approach or focussing on sustainability/environmental/development issues:**
- **German “Action plan for Civilian Crisis Prevention, Conflict Resolution and Post-Conflict Peace-Building,, (May 2004)  
161 initiatives by governmental bodies and stakeholders (including business);**
- **intergovernmental approach: lighthouse projects, inter-ministerial steering group, stakeholder forum;**
- [http://www.auswaertiges-  
amt.de/www/en/aussenpolitik/friedenspolitik/ziv\\_km/aktionsplan\\_html](http://www.auswaertiges-<br/>amt.de/www/en/aussenpolitik/friedenspolitik/ziv_km/aktionsplan_html)

# **1. Umsetzungsbericht Mai 2006**

## **Kapitel 8 Umwelt und Ressourcenschutz**

### **8.1 Umwelt und Ressourcenschutz in der Krisenprävention**

### **8.2 Umweltkooperation als Katalysator für Friedensprozesse**

### **8.3 Strategie und Kommunikation**

# Communication Strategy

- **Networking the interested parties and stakeholders: information platform and a bi-monthly „Newsletter“ (free of charge): Zivile Krisenprävention / Umwelt und Ressourcen <http://krium.de>**
- **English version „Environment, Conflict, cooperation: <http://www.ecc-platform.org>**
- **Exhibition „Environment, Conflicts and Cooperation“ visualizes security impacts of global environmental change (English and German version)**
- **Exhibition can be ordered by low costs (transport, assurance); all details: <http://www.ecc-exhibition.org/en/project.htm>**

# Exhibition „Conflict, Environment and Cooperation“



# International Organisation

- **United Nation (wide variety of processes), e.g. „United Nations & Global Security“: policy briefings on natural resources, global warming and water**

[http://www.un-globalsecurity.org/papers\\_cat/found\\_sust\\_world.htm](http://www.un-globalsecurity.org/papers_cat/found_sust_world.htm)

- **„Environmental dimension“ within OSCE (economic pillar) includes cooperation and civil society**

**development** <http://www.osce.org/eea/>

- **OECD/DAC Guidelines „Helping Prevent Violent Conflicts“ (2001); new work (US AID)**

<http://www.oecd.org/dataoecd/15/54/1886146.pdf>

- **Best practice: current UNEP/UNDP/OSCE/NATO project**



Peacefully resolving the overriding political, economic and social concerns of our time requires a multifaceted approach, including mechanisms to address the links between the natural environment and human security. [UNDP](#), [UNEP](#), [OSCE](#) and [NATO](#) have joined forces in the Environment and Security (ENVSEC) Initiative to offer countries their combined pool of expertise and resources towards that aim.


Regions are Central Asia, South-Eastern Europe, South Caucasus, Ukraine/Moldavia/Belarus.

The ENVSEC Initiative builds on the combined strengths and field presence of the lead organizations to perform three key functions: assessment and monitoring of environment and security linkages; capacity building and institutional development; and integration of environmental and security concerns and priorities in international and national policy-making.

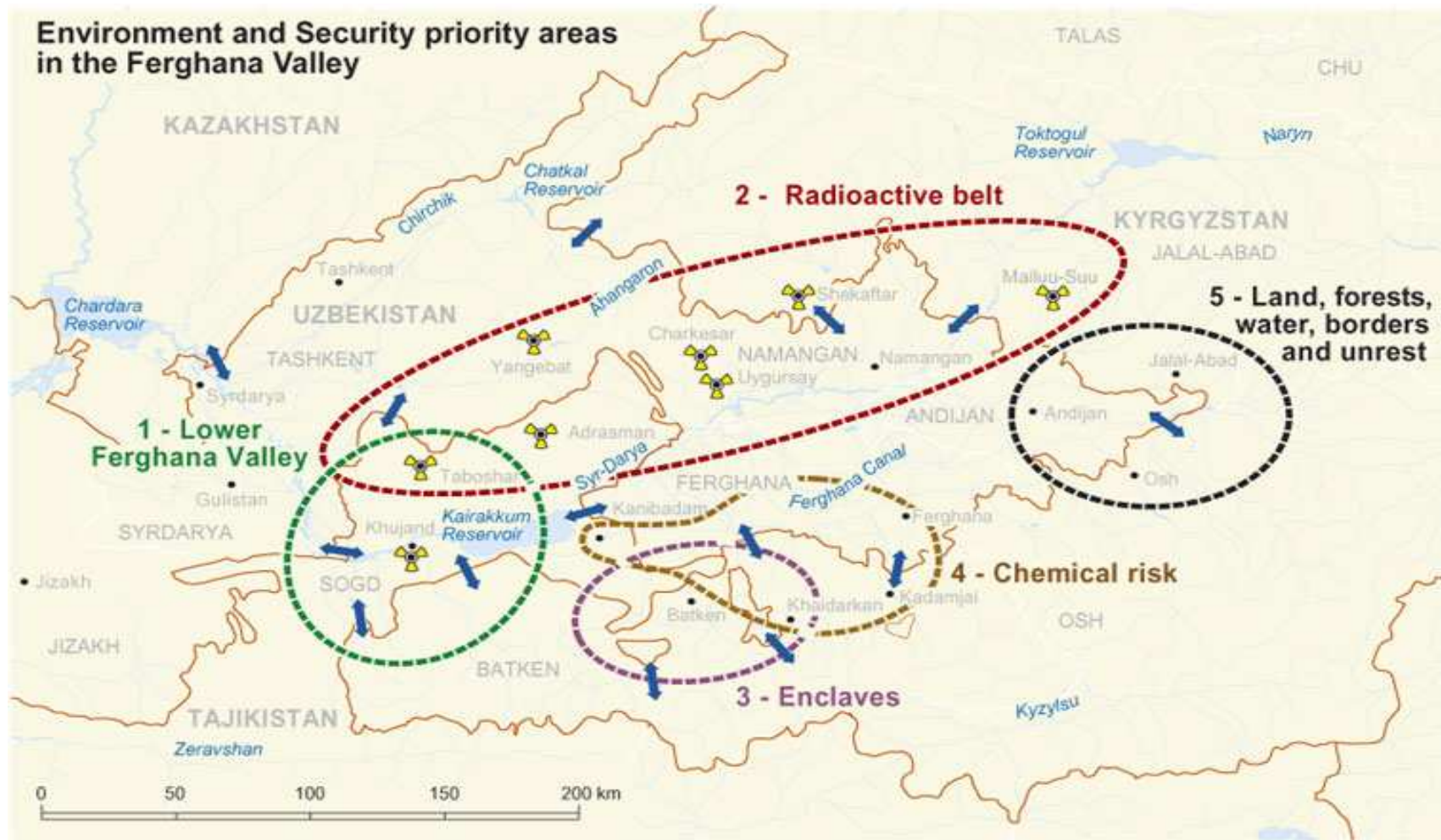
More: <http://www.envsec.org/>

Launch of the new ENVSEC publication: [Environment and Security: Transforming risks into cooperation - Central Asia - Ferghana / Osh / Khujand area](#). UNEP, 2005.  
[Also available in russian](#)



 [See \*\*UNEP press release\*\*: New report highlights environmental and security risks in Central Asia's Ferghana valley](#)

# Environment and Security priority areas in the Ferghana Valley



**1 - Lower Ferghana Valley**  
Water regulation, radioactive waste management, water table rise and local disputes, soil degradation (salinization)



**2 - Radioactive belt**  
Poor radioactive waste management and risk of transboundary pollution (air, water, food chain)



**3 - Enclaves**  
Border, land and water disputes, presence of land-mines (making agriculture and cattle grazing dangerous), deforestation



**4 - Industrial pollution and chemical risk**  
Risk of transboundary pollution due to poorly managed industrial and chemicals disposal sites



**5 - Land, forests, water, borders and unrest**  
Land degradation and deforestation, water reservoirs and regulation, border and land disputes, recent civil unrest



Opportunities for transboundary cooperation

THE MAP DOES NOT IMPLY THE EXPRESSION OF ANY OPINION ON THE PART OF THE AGENCIES CONCERNING THE LEGAL STATUS OF ANY COUNTRY, TERRITORY, CITY OR AREA OF ITS AUTHORITY, OR DELINEATION OF ITS FRONTIERS AND BOUNDARIES.

MAP BY VIKTOR NOVIKOV AND PHILIPPE REKACEWICZ - UNEP/GRID-ARENDA - APRIL 2005

v.

Conclusions

# **„Strategic Alliance“ ??**

**„Strategic alliance“ between security policy and development policy: projects addressing poverty and sustainability of natural resources should be considered as investments for conflict prevention:**

- **World Military Expenditures 1118 Billion US\$ (2.5 % World GDP) (SIPRI)**
- **developing countries: 225 Billion US\$ (2002);**
- **Official Development Aid (ODA) 68 Billion US\$ worldwide (2003)**
- **Achieving Millennium Development Goals needs twice of present ODA: 6 % of the military budget**

# Key Messages

- 1. the environmental pillar of the extended security approach is both, „pressure“ and „response“**
- 2. global environmental change in combination with continuous population growth and increasing resource demands creates new security challenges**
- 3. these challenges determines new approaches of security policies in terms of prevention, early warning and early action**
- 4. environmental policy initiatives in various sectors and region should be considered as a part of the common security policies**
- 5. this is not yet confirmed in terms of established priorities, budgets and „political success“.**