What are the Essential Elements of Environmental Security Assessments

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Outline

- What ESA material did I survey
- History and Underlying Assumptions or Core Concerns
- Breaking Down and Comparing ESAs to Highlight Similarities
- Outputs
- Future Challenges
Surveyed
History

Environment, Scarcity, and Violence
THOMAS F. HOMER-DIXON

Greed and Grievance
Economic Agendas in Civil Wars
edited by Mats Berdal and David M. Malone
A Project of the International Peace Academy

Environmental Peacemaking
edited by Ken Conca & Geoffrey D. Dabelko
Since the end of the Cold War, when using the term environmental security, we generally refer to 6 “domains”

1) **Environmental degradation or depletion as a threat to human health and human well-being** stemming from competition with disease causing microorganisms; from declining standards of living; from declining agricultural outputs; from increased pollution; from increased ultraviolet radiation; and from economic instability and decline; may perhaps hear this discussed more frequently in the context of climate change.

2) **Military’s impact on the environment** - Environmental degradation or depletion stemming from military preparation for armed conflict; from the conduct of armed conflict; and from the disposal of military waste.

3) **Environmental scarcity as a cause of political instability or violent conflict**, including the political ecology and political economy of resource exploitation, scarcity-migration-conflict links, climate change induced impacts; **and the exploitation of locally abundant, and globally scarce resources as a cause, aggravator, or trigger of conflict**, like conflict diamonds.
6 Domains of Environmental Security Influential In ESAs

4) Institutional infringement on the principle of sovereignty to mitigate environmental degradation – and here people include international agreements like the Montreal Ozone Protocol or the Kyoto Pact which places limits on the freedom of states to do whatever they please in the name of environmental protection;

5) Military and defense intelligence institutions as agents of environmental security, monitoring and enforcing international environmental agreements; gathering, analyzing, and disseminated scientific data on the national environment; responding to mitigate environmental crises and disasters; implementing environmental sustainability programs; guaranteeing access to natural resources; spinning off environmental cleanup technologies; and protecting national parks and reserves.

6) Environmental peacebuilding, including building peace and dialogue through environmental cooperation, preventing conflicts directly related to the environment, and building long-term peace through sustainable development and good environmental management.
Composite Model of Climate Change Impacts and Links to Conflict

Negative Climate Change Impacts → Human Livelihood Insecurity → State → Conflict

Other necessary factors for Conflict

+ → - → + → - → +
What are Environmental Security Assessments?

ESAs translate prevailing understanding of causes of environmental insecurities for diagnostic purposes - to assist in prescriptive policymaking, conflict avoidance, conflict resolution, post-conflict peacebuilding, and sustainable development.

- Outlook of Assessments Influenced by Past Research
- Outlook Influenced by specific definitions of environmental security
EIAs and ESAs – Security Focus

Appendix 1. Important Steps in the EIA Process

Project screening (is an EIA needed?)
Scoping (which impacts and issues should be considered?)
Description of the project/development action and alternatives
Description of the environmental baseline
Identification of key impacts

Prediction of impacts
Evaluation and assessment of significance of impacts
Identification of mitigation measures

Presentation of findings in the EIS (including a non-technical summary)
Review of the EIS
Decision making

Post-decision monitoring
Audit of predictions and mitigation procedures

Public consultation and participation

Source: Glasson et al. 2005.
Different Definitions of Environmental Security in ESAs

Environmental insecurity is a condition in which a nation or region fails to effectively govern, manage, and utilize its natural resources and environment, resulting in social, economic, or political instability that over time may lead to heightened tensions, social turmoil, and conflict. **FESS**

Environmental Security is defined as the current and future availability of life-supporting ecosystem services and goods for human needs and natural processes. **IES**

“Environmental security” refers to the area of research and practice that addresses the linkages among the environment, natural resources, conflict, and peacebuilding. **UNEP**
Environmental Security Programs

Environmental Security Assessments are often employed in the service of some program or agenda.
Environmental Security Programs that include Assessment: IES

Method In Summary:

- **Data Collection**
- **Analyses**
- **Advocacy**
- **Action Plan**
- **Monitoring and Reassessment**

- Interdisciplinary Approach
- Consultative & Participatory process. (local stakeholders)
- Work in progress
Environmental Security Programs that include Assessment: ENVSEC

<table>
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<tr>
<th>Focus areas and projects</th>
<th>Implementation</th>
<th>ENVSEC pillars</th>
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<td>Lead organisations</td>
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<td>Management of shared environmental resources</td>
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<td>Transboundary cooperation and sustainable management in the Dnieper river basin</td>
<td>UNECE OSCE UNEP</td>
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<td>Real-time monitoring and decision support systems for international rivers: the Dnieper and Prut rivers</td>
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<td>Cross-border assessment and management plan for the Drysvalika / Druksial lake basin</td>
<td>UNEP REC (LT)</td>
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<td>Joint research related to activities with transboundary impact in the Danube delta</td>
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<td>Mitigating security risks from sources of pollution and waste</td>
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<td>Mitigating risks from stocks of obsolete pesticides in transboundary basins and near-border areas</td>
<td>NATO OSCE (MD)</td>
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<td>Development of capacities for application of the Espoo Convention</td>
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<td>Mapping and analysis of distribution and flows of radionuclides around the Chernobyl nuclear power plant</td>
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<td>Strengthening capacities to assess and prevent risks from hazardous activities</td>
<td>UNECE</td>
<td>MD with UA, RO</td>
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Comparing ESA Process – Similarities and Security Value-Added Compared to EIAs

- Use UNEP Conflict Analysis Frame to identify links between conflict and environment – past, present, and future. Includes:
  - Initial scoping studies
  - Background desk studies
  - Field visits
  - Remote sensing
  - Stakeholder consultation
- Analysis, Synthesis and Reporting – Recommendations produced for development and peacebuilding at national and international levels
- Final Report and Recommendations

UNEP PCA

- Phase 1 – Baseline Country and ODA profile
- Phase 2 – Identify critical country concerns for security and stability
- Phase 3 examine CCCs in relation to environment and governance capacity
- Phase 4 ID problems defined as Environmental Security Factors (problems which seriously handicap nation’s political, economic, and social welfare)
- Phase 5 – Field Investigation and Stakeholder consultation on ESFs
- Phase 6 - Outline Stakeholder Perceptions, Concerns, and interests around ESFs
- Phase 7– Scenario building – 3 options
- Phase 8 Matching Scenario outcomes to donor and ODA help to identify gaps
- Phase 9 – Final Report and Recommendations

FESS – ESAF 2

- Selection of Geographical Area of Interest (Remote Sensing)
- Issues identification
- Stakeholders identification
- Potential Conflict identification
- Synthesis maps and GIS analysis (project team)
- Gaps in Mitigation
- Policy, Legal and Financial Analyses Recommendations
- Synthesis maps and webGIS (policy makers & donors)
- Funding source and relevant local actors identification
- Discussion & selection of alternatives (maps, policies) with donors and local actors
- Implementation
- Continuous monitoring of resources
  - long term agreements
- Reassessment

IES
Comparing ESA Process – Common Elements

- Initial Scoping Study of General and Specific Environmental Security Risks
- Stakeholder participation in identifying and defining environmental insecurities
- Field Data collection, collation, and synthesis
- Refined and Focused identification of ES risks
- Comparison of national governance capacity and ODA with ES risks to identify gaps and needs
- Policy recommendations and reporting

Widely Shared Common ESA Elements

- Scenario Building
- Legal Analysis
- Reassessment

Other Shared ESA Elements
ESAs vs Scholarly Research

- ESAs can be differentiated from scholarly research on environmental security, with little direct policy intent.

- Running environmental security programs results in dilemmas about whether to strive for technocratic neutrality and eschew analyses that assign blame.
  - Don’t want to upset countries or certain elites to the point where they block projects from happening.
  - ESA analyses have been generally reluctant to track how inequalities in resource holdings have developed or how they should be addressed.
Climate change: A new threat to stability in West Africa? Evidence from Ghana and Burkina Faso

Oli Brown and Aloc Crawford

Introduction: Climate change as the ‘new’ security threat

Recent scientific evidence has given us a picture of the physical impacts on our world that we can expect as our climate changes. And those impacts go far beyond the environmental. Their consequences reach to the very heart of the security agenda.

---Margaret Beckett, UK Foreign Secretary
UN Security Council debate a New York, 17 April 2007

Over the past decades, the way we talk about climate change has shifted dramatically. When scientists began to uncover worrying evidence of human-induced climate change in the

* Oli Brown is the program manager and Aloc Crawford a project officer at the IIED in Geneva.
**ESA Outputs - Maps**

- Environment and security issues in Moldova
- Environment and security priority areas in Eastern Europe
ESA Outputs – GPS Maps

GPS positioning in Nam Can District (in purple) with Chinese Sea on the right (using Google earth)

Source: IES Mekong Study
ESA Outputs – GIS-Based Climate Hazard Maps

**Climate Related Hazard Exposure in Africa**

- **Historical Exposure (quintiles)**
  - Lowest
  - Low
  - Medium
  - High
  - Highest
  - None

**Composite Vulnerability in Africa**

- **Vulnerability (quintiles)**
  - Lowest
  - Low
  - Medium
  - High
  - Highest
  - Unpopulated area

Data Sources: World Bank Governance Indicators; Polity IV Project; Political Regime Characteristics and Transitions; KOF Index of Globalization; Political Instability Task Force Worldwide Atrocities Dataset; World Health Organization; World Development Indicators; Food and Agriculture Organization of the United Nations; Food Security Statistics; PreventionWeb; DEM from USGS: GRUMP, CIESIN

Source: Busby et. al. 2010
ESA Challenges

- Avoiding politics could make ESAs irrelevant
- Lack of long-term environmental and livelihood data handicaps credibility
- Ensuring that “security” concerns come out clearly in the analysis
- Scale – getting down to livelihoods and dealing with complexity
Thank You