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Working Group 6

Sustainability and environmental security

Research Plan and Directions

Prepared by Dr. Tamás Pálvölgyi and Prof. Dr. András Szöllősi-Nagy

Objectives

The objective of the WG 6 research is to explore the interconnectedness of sustainability and environmental security by examining how sustainable practices contribute to the stability of ecosystems, reduce resource-based conflicts, and promote global peace. Specifically, the research aims to:

- Analyse the role of sustainable development in mitigating environmental threats.
- Evaluate existing policy frameworks linking environmental protection with national, EU and global security.
- Identify key indicators and strategies that enhance both sustainability and security.
- Provide recommendations for integrating sustainability into security policy-making.

The Research Plan will also investigate the potential for conflict prevention through sustainable water and energy management. It seeks to understand how adopting integrated water management, using renewable energy sources, enforcing environmental regulations, and strengthening climate adaptation strategies can help stabilize vulnerable social groups and regions. Moreover, the objectives include identifying the long-term benefits of investing in sustainable infrastructure to promote peace and development.

Given these objectives, the research will focus on three priority areas:

- sustainable water management, water security and water conflict management
- sustainable energy management, energy poverty
- climate adaptation and sustainability

Background

Environmental degradation and resource scarcity are increasingly recognized as catalysts for conflicts and instability. Climate change, deforestation, pollution, and biodiversity loss have

profound implications for human security. Sustainability, defined by the UN as meeting the needs of the present without compromising the ability of future generations to meet their own needs, offers a holistic framework to address these challenges. A growing body of literature emphasizes the security risks associated with unsustainable development and the potential of sustainable policies to alleviate socio-political tensions. Integrating environmental sustainability into national security strategies has gained prominence, particularly in the face of global climate crises and resource conflicts.

Environmental security as a concept emerged in the 1980s and has since evolved into a multidisciplinary field that bridges environmental science, political science, and international relations. As the impacts of climate change become increasingly pronounced, governments and institutions are re-evaluating traditional notions of security to include non-traditional threats such as sea-level rise, desertification, and climate-induced migration. In fragile states, environmental pressures exacerbate existing socio-economic vulnerabilities, often leading to political unrest, mass displacement, and inter-communal violence. Consequently, sustainability is no longer just a developmental goal but a key factor in strategic planning for peace and security.

At the international level, key United Nations documents have been instrumental in shaping the discourse around environmental security and sustainability. The 1987 Brundtland Report ("Our Common Future") introduced the concept of sustainable development to a global audience, emphasizing the interconnectedness of ecological health and human well-being. The 1992 Rio Earth Summit laid the groundwork for subsequent environmental treaties, including the UN Framework Convention on Climate Change (UNFCCC) and Agenda 21. The Paris Agreement (2015) further solidified the global commitment to limit greenhouse gas emissions and adapt to the changing climate.

The 2030 Agenda for Sustainable Development, adopted by all UN Member States in 2015, established 17 Sustainable Development Goals (SDGs), many of which are directly linked to environmental sustainability and peace, such as SDG 6 (Clean Water and Sanitation), SDG 13 (Climate Action), and SDG 16 (Peace, Justice and Strong Institutions).

Within the European Union, sustainability and environmental security have become integral components of regional policy. The European Green Deal, adopted in 2019, is the EU's flagship strategy to achieve climate neutrality by 2050. It includes initiatives targeting biodiversity, clean energy, circular economy, and sustainable agriculture. Additionally, the EU Security Union Strategy (2020–2025) acknowledges environmental and climate-related risks as emerging threats to the Union's stability and emphasizes the importance of integrating these into broader security planning.

Moreover, EU directives such as the Water Framework Directive (2000/60/EC), the Climate Law, and the Biodiversity Strategy for 2030 reflect a commitment to systemic environmental protection. These policies support ecological preservation and are seen as tools for preventing conflict, mitigating forced migration, and fostering resilience within vulnerable communities.

Research Questions

The research will be guided by the following questions:

1. How do sustainable development practices contribute to environmental security?

2. What are the most critical drivers and threats that challenge water and energy security at the global, EU and national levels?

3. How have international institutions integrated sustainability into their sectoral and security strategies?

4. What policy tools and indicators most effectively enhance sustainability and security?

5. What are the socio-political barriers to integrating sustainability and environmental security frameworks?

6. How can peacebuilding frameworks integrate water- and energy-related conflict solutions?

7. How does energy and water justice enhance community resilience and security?

Methodology

This research will employ a mixed-methods approach combining qualitative and quantitative tools:

- Literature Review: An extensive review of academic literature, policy papers, and reports from international organizations such as the United Nations, the European Union, and the World Bank.
- Case Studies: Analysis of specific case studies where sustainability and environmental security intersect, such as water management in the Middle East or energy poverty in Central and Eastern Europe.
- Interviews, focus group consultations: Semi-structured interviews with environmental policy experts, security analysts, and governmental officials.
- Dissemination, stakeholders' consultation.

The case studies will be selected based on regional diversity and relevance to both environmental and security concerns. The quantitative component will analyse secondary data on climate risk indices, conflict incidence, and sustainable development indicators from global and EU databases such as the World Bank Open Data, UNDP, Eurostat and the Global Peace Index.

We also want to involve our existing networks, such as UNESCO Char on Water Conflict Management (led by Professor András Szőllősi-Nagy), the Students' Science Club and the Sustainable Energy and Climate Working Group of European Research Network (led by Tamás Pálvölgyi)

Outcomes

This research aims to produce results that are both theoretically valuable and practically applicable. The following outcomes are anticipated:

- A more transparent conceptual framework linking sustainability and security, especially in the fields of water, energy and climate change policies
- Policy insights into how sustainable development can reduce conflict risks in planning and implementing climate change adaptation.
- Identification of best practices in international and national policy integration.
- A set of practical recommendations for aligning water and energy strategies with security agendas.
- Foundation for future interdisciplinary research at the nexus of ecology, peacebuilding, and policy.

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