

## Introduction to the Understanding of the Great Trouble

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### Abstract

This introductory text presents the international conference “War, Soil, and Freshwater Systems,” dedicated to the long-term environmental and public health consequences of military activity. The publication emphasizes the need for interdisciplinary scientific cooperation in studying the effects of armed conflicts on soils, freshwater systems, ecosystems, and human environments. Special attention is given to the lessons of the Vietnam War and the ongoing war in Ukraine as examples of complex ecological and humanitarian challenges requiring systematic international research and knowledge preservation.

*Keywords:* war ecology, soil contamination, freshwater systems, environmental consequences of war, military impacts, interdisciplinary research, environmental science, toxic substances, scientific dialogue, ecological damage, long-term environmental effects.

### Key Points

1. Long-Term Environmental Consequences of Armed Conflict. Military activity produces not only immediate destruction but also prolonged processes affecting soils, freshwater systems, ecosystems, and human environments over extended periods of time.
2. Insufficiency of Existing Scientific Frameworks. Current scientific and institutional approaches remain insufficient for the systematic study, comparison, and preservation of knowledge concerning the environmental and public health consequences of war.
3. Necessity of Interdisciplinary International Cooperation. The conference is presented as a platform for professional dialogue among researchers and practitioners from different scientific disciplines, institutional backgrounds, and countries.

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4. The War in Ukraine as an Ongoing Object of Observation. The ongoing war in Ukraine is identified as a source of emerging long-term risks for soils, freshwater systems, ecosystems, and human environments that remain insufficiently investigated within international scientific research.
5. Formation of a Long-Term Scientific Initiative. The project is described as an annual international initiative intended to support the accumulation of scientific knowledge, publication of research materials, and development of an international research community.

## **Introduction**

The consequences of military impacts on soils, fresh water, ecosystems, and the human environment belong among the most complex and insufficiently understood problems of the modern world. This concerns not only the immediate destruction caused during armed conflicts, but also long-term processes whose effects may continue to unfold for decades after active hostilities have ceased.

The experience of the Vietnam War demonstrated that environmental and public health consequences associated with military activity can persist across generations. Soil contamination, disruption of water systems, toxic residues, and ecological destabilization often remain only partially understood long after the formal end of war. Many such consequences emerge gradually and require sustained scientific observation over extended periods of time.

The ongoing war in Ukraine already raises similar concerns regarding the future condition of soils, freshwater systems, ecosystems, and human settlements. A substantial number of these processes are only beginning to emerge and still remain outside the scope of systematic international scientific investigation. Existing scientific approaches frequently remain fragmented between disciplines, institutions, and national research traditions, complicating the accumulation and preservation of knowledge concerning such phenomena.

For this reason, the conference is being established as a platform for open professional dialogue among specialists from different scientific and practical fields. The project is intended to encourage interdisciplinary discussion, long-term scientific cooperation, and the gradual formation of an international research community focused on these problems.

The conference welcomes researchers, practitioners, engineers, environmental specialists, medical experts, and independent investigators regardless of country of origin, language, institutional affiliation, or academic specialization. The principal criterion for participation is the meaningful contribution of participants to the understanding of the processes under discussion.

The first day of the conference will be devoted to plenary presentations delivered in person in Prague. Sectional and poster presentations may be presented either in person or remotely. Since many specialists do not always have the opportunity to travel

internationally, the conference seeks to preserve participation opportunities for the widest possible professional audience.

The publication and preservation of conference materials is regarded as one of the central tasks of the project. Preliminary materials will be made available to registered participants. Following the conference, a separate volume dedicated to presented studies, observations, discussions, and methodological approaches is planned for publication. The present introduction has been prepared specifically for that edition.

The conference is conceived as a long-term international initiative. It is planned that the conference will be held annually while preserving its principal thematic orientation. Such a format is expected to contribute to the gradual accumulation of scientific experience, the development of interdisciplinary dialogue, and the formation of stable international cooperation in the study of long-term environmental consequences of war.

Assistance with translation of materials into English is also anticipated. It is considered important that language barriers do not become an obstacle to the dissemination of scientific knowledge, professional observations, and research results.

All submitted materials must comply with established editorial requirements and standards of academic scientific language. At the same time, the conference seeks to preserve an atmosphere of open and responsible professional discussion concerning problems whose long-term significance may extend far beyond the present historical moment.

### **Conflict of Interest**

The authors declare no conflict of interest.

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### **Data Availability Statement**

No new data were created or analyzed in this study.