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Summary

Global environmental changes pose security risks and must therefore be integrated into security strategies. It is essential to avoid creating new fossil-fuel path dependencies and to harness the transition to renewable energies as a security gain. The role of natural infrastructure in civil protection should be prioritized by law. Cooperation on ecosystem conservation and on the sustainable management of natural resources is an investment in stability and security.

Global environmental changes such as climate change, biodiversity loss and pollution are security risks. At the same time, environmental policy – and climate policy in particular – can contribute to national security policy. These interrelationships are scientifically recognized and have already been discussed at the political level, including by the UN Security Council. The German Government's National Security Strategy (2023) has also confirmed the need for an integrated security approach that takes environmental changes into account, although this has not yet been consistently implemented.

[Integrate the environment more closely into the security architecture](#)

Environmental protection is a basic public service and the foundation for the long-term preservation of prosperity and well-being, and is thus part of forward-looking, intersectoral security policy across all policy areas. The conservation and restoration of the natural life-support systems can strengthen society's resilience and ability to act systematically and long-term.

The WBGU recommends (1) permanently integrating environmental changes and the protection of natural life-support systems into the work of the National Security Council, also by prioritizing natural infrastructure for civil protection. Environmental risks should be a key component of the Council's work. (2) Systemic risk analyses should integrate not only classic security threats but also creeping risks from climate change, biodiversity loss, pollution and other environmental risks. A continuous, comprehensive national risk analysis should be coordinated and prioritized by the German National Security Council. The prevention of security risks should be the

guiding principle here. In addition, comprehensive foresight analyses should be carried out, including detailed adaptation scenarios and implementation strategies. (3) Conflict prevention, peacekeeping and peacebuilding should be given equal weight in the federal budget as defence. This parity should also apply to policy-making, financing and political communication within the EU and NATO.

[Climate stabilization as a security factor](#)

In the WBGU's view, halting global warming and, in the long term, reducing the global average temperature by removing CO₂ from the atmosphere are key components of an integrated security architecture. On the one hand, this requires phasing out the burning of fossil fuels as comprehensively as possible. A transition to an energy system based on renewables can simultaneously enhance supply security, resilience and, consequently, geopolitical room for manoeuvre. Furthermore, the focus must shift towards extensive electrification across all consumption sectors and, where appropriate, towards the use of hydrogen. In the electricity system, flexible consumption, storage technologies and decentralization can increase resilience. Carbon dioxide removal is necessary, but must not lead to new risks, e.g. for societal groups, food security or biodiversity.

[Natural infrastructure for civil protection](#)

The WBGU defines natural infrastructure as ecosystems that fulfil functions of civil protection, e.g. through heat protection, climate protection, and water and air purification. This includes, above all, areas of particular importance for nature conservation and landscape

conservation, which can be located both in built-up and in open spaces. In order to do justice to this importance for civil protection, the natural infrastructure should be prioritized by law. In the WBGU's view, a prerequisite for this is the legal designation of an overriding public and security-policy interest.

An inventory is required in order to identify and designate those areas, natural spaces and their components that, as natural infrastructure, are in the overriding public interest for civil protection; this could be carried out, for example, using remote sensing. The protection of natural infrastructure also requires international cooperation and funding. The German Government should therefore continue to participate actively and ambitiously in financing models such as the Green Climate Fund or the various REDD+ funds, and further develop these in collaboration with other states. In Germany, funding for natural infrastructure should be established in a similar way to that for grey infrastructure.

To protect natural infrastructure and its ecosystem services from creeping environmental risks, cross-sectoral early-warning systems should be further developed to enable forward-looking action and, ideally, preventive funding. In order to mitigate risks, it is also necessary to raise awareness among the public, relevant civil-society and civil-protection actors, and the German Armed Forces regarding the growing dangers; incentives for volunteering schemes and participation in citizen-science projects can contribute to this.

Expand locally run environmental peacebuilding projects

Ecosystem conservation and the joint management of natural resources have the potential to contribute to peacebuilding by fostering trust between societal groups and between governments. They can also promote self-efficacy and resilience – both internationally and in Germany. They should therefore be systematically consolidated in development policy and peacebuilding. Conflict- and gender-sensitive approaches, the involvement of local actors, and the integration of local and indigenous knowledge should be made mandatory in relevant programmes.

The WBGU recommends cooperative, inclusive ecosystem conservation led by local actors. This should facilitate both the preservation of the natural life-support systems and the sustainable use of resources and land. Mosaic landscapes that combine different functions should be designed in a cooperative, inclusive and, where appropriate, transboundary manner.

To strengthen young people's societal responsibility and intergovernmental or local cooperation, the WBGU recommends recognizing the Ecological and Social Year as being of equal value to military service. Furthermore, the German Government policy guidelines for civil conflict prevention should be integrated into the implementation guidelines of the National Security Strategy.

Research recommendations

Research into the implementation of climate-mitigation and nature-conservation targets as security measures should be strengthened. Interdisciplinary research initiatives at the interface between environment and security are also recommended. This applies in particular to research into security risks with regard to large-scale, gradual changes leading to tipping points that can exacerbate risks to human security.

In addition, the evidence base for the link between environmental changes and conflicts should be improved and developed in accordance with the regional context. There is a lack of studies on the interaction of environmental crises, as well as associated risk cascades and their significance for national and international security – ranging from threats to food security and health, through societal destabilization, to displacement and violent conflicts.

In order to evaluate the success factors regarding the design, management and performance of natural infrastructure for civil protection, transdisciplinary scientific collaboration in this field should be promoted.

Furthermore, research into security-relevant multiple benefits of cooperative ecosystem conservation and resource management should be expanded. The WBGU recommends promoting accompanying research on conflict-sensitive approaches and environmental peacebuilding in German development cooperation and humanitarian aid, particularly regarding the effectiveness of transboundary nature-conservation projects and environmental peacebuilding processes.

