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Environmental security

Summary

DEFINITION OF THE TERM: The concept of environmental (ecological) security is variously defined. It refers to the protection and promotion of safe external conditions for human life, development, and survival.

HISTORICAL ANALYSIS OF THE TERM: Concepts such as 'sustainable development' and 'human security' have contributed to the international development of the concept of 'environmental security', which, from the perspective of security studies, has been developed by representatives of the Copenhagen School, critical studies, and feminist studies. In practice, as a sector of national security, environmental security is realised both externally and internally.

DISCUSSION OF THE TERM: The specificity of environmental security is reflected in being analysed both subjectively and objectively and in the different levels of analyses: global, national, local, and individual. The article emphasises the interdependencies that exist between factors such as the environment, war, peace, justice, human well-being, and climate change.

SYSTEMATIC REFLECTION WITH CONCLUSIONS AND RECOMMENDATIONS: A successful security policy consists in responding to complex environmental threats; so, in order to implement one, the state requires adequate resources and high organisational efficiency at different levels of governance. Specific determinants of environmental security, especially the complex nature of threats in this area, do not make it easy to decide on a course of action. Analyses of environmental security reveal the need for systematic and in-depth reflection in this area.

Keywords: environmental security, ecological security,
climate security, environmental threats, human security

Definition of the term

Environmental (also called ecological) security is becoming an increasingly important area of interdisciplinary analyses. According to J. Barnett (2009), the concept of environmental security is understood in various ways because it combines the powerful but ambiguous concepts of environment and security, and it encompasses various scientific disciplines and research schools within which these concepts are studied. Given that the term 'environment' includes the biological, physical, and chemical components of life-supporting systems, and that its protection consists in taking or ceasing to take actions that enable the maintenance or restoration of natural equilibrium, this results in a multi-criteria research area. In this respect, environmental security is "linked with the maintenance of the local and planetary biosphere as an essential support system on which all other human endeavours depend" (Regina-Zacharski, 2021, p. 91).

As a result of increased consumption and pollution, especially in modern societies with high levels of energy use, environmental problems are now major policy issues. This gives rise to a wide range of problems of different scales ranging from local to global: the greenhouse effect, air pollution, the loss of biodiversity and food resources, deforestation, the scarcity of drinking water, pollution of the seas and oceans, soil degradation, chemical contamination, litter, and population growth, etc. Security can refer to a state of affairs, a territory, a process, and different types of threats (war, famine, flood, etc.). However, national security risks are the main axis of the discourse devoted to security in two main dimensions: external (international) and internal. The proper identification of threats is crucial for safeguarding the existence and development of the state and the nation (territorially and ideologically). Increased environmental awareness has contributed to the recognition of environmental problems as serious at the global level, and growing international interdependence has broadened and deepened the scope of security. Multi-level interactions have led to the emergence of new areas (sectors) of security, including environmental security, as reflected in 1972 at the first United Nations Conference on the Human Environment, which introduced the modern understanding of the concept of environmental security and was consolidated by the idea of sustainable

development in 1987. The subsequent UN conferences closely tied the issues of environmental security with climate change and biodiversity protection (1992), human security (1994), and human development (Millennium Goals 2002, Agenda 2030). M. Pietraś defines environmental security as

a state of social relations, including the content, forms, and ways of organising international relations, which not only reduces and eliminates environmental threats but also promotes positive actions, thus enabling the realisation of values that are important for the existence and development of nations and states (Pietraś, 2000, p. 85).

Environmental security is a relatively new and dynamically developing concept which has been incorporated into broader analyses of security. It relates to national security and is included in its strategic framework. In this context, two levels of action are important: internal, i.e., national, which is largely based on crisis management and response to security threats of a natural and anthropogenic nature; external, i.e., international, which primarily relates to responding to conflicts over resources and transborder threats. The international dimension is an area of great developmental potential but is hardly addressed by national security policies, which still lack adequate measures in this area. This is because environmental security at this level concerns environmental problems resulting from climate change, which changes the characteristics of security policy, e.g., responses that take a long-term view versus one-off actions (this direction of security development, however, stems from the pressure exerted by some countries on the UN Security Council). The issue of environmental security has been sporadically addressed by the Council's forum since 2006, but pro-environmental projects are an integral component of peacekeeping missions.

The term 'environmental security' has been undergoing dynamic transformation since it was coined. It is evolving from a systems approach, linked to existential risks and the increase in global threats, including the functioning and stability of the ecosystem (Earth's homeostasis), to environmental security, which concerns the interactions between humans and the environment from the perspective of the protection of the environment by humans and the protection of humans against natural and anthropogenic disasters. Due to the increasing role played

in international politics by climate change, climate security intersects with energy security and raw materials security. S. Dalby observes that

ecological security is concerned with maintaining the integrity of natural systems on which humanity is dependent, an especially complicated and difficult matter now that humanity is effectively changing the planet's ecology in the Anthropocene. Climate security, insofar as it aims to keep the planet's temperature close to what civilization has so far known, is now obviously a key to ecological security (Dalby, 2013, p. 315).

Given the findings of the 2021 Intergovernmental Panel on Climate Change, climate change is an existential threat to the security of states and is currently the most significant threat to humanity. It refers to natural or anthropogenic events that are dangerous to life, the environment, and property, or to events that facilitate the destruction of the potential and prosperity of societies. Climate security is therefore considered to be

the coordinated and sustained implementation of prevention, mitigation, and resilience measures necessary to permit the responsible management of risks inherent to climate change throughout all levels of (...) governance (Comiskey, Larranaga, & Carlson, 2022, p. 429).

The boundaries between the definitions of ecological, environmental, and climate security are not clear-cut, and each type of security can be analysed from local, state, and international perspectives. In the author's opinion, the most adequate concept of environmental security is that in which interactions between elements within an ecosystem (ecological security) and protective measures implemented by humans are equally valid, as this allows a broad interpretation to be undertaken. Given that the term 'ecological security' is most widely used in Poland, the term 'environmental security' will be considered synonymous with it in this article. Climate security, on the other hand, may suggest narrowing this perspective to the currently recognised consequences of climate change, but it should be borne in mind that their scope is very broad and the scale may have global implications. The response in such a case must be continuous (not one-off), adaptive and mitigative, which is a big challenge to traditional security measures.

Today, the effects of climate change have become more extreme and perceptible, which amplifies the risk of threats that traverse state borders.

The changing operational environment is a challenge to any long-term strategy adopted by states and to the stability of the international order. The example of the melting Arctic ice is telling here and reveals rivalries between several state actors in this area. In environmental security, it thus becomes crucial to reduce the risk of the negative consequences of climate change on a state and its society. This is because it has been concluded that national security will be affected by disruptions of the existing world order, in which weak states will become more vulnerable and thus susceptible to rivalry and the impact of the superpowers, while threats to the internal order will be less specific, transboundary, difficult to assess clearly, and will require different responses according to needs.

Using the definition developed by the UN Environment Programme, environmental security policy can be described as consisting of “measures taken or policies instituted to protect and promote the safety of external conditions affecting the life, development and survival of an organism. Environmental security examines threats posed by environmental events and trends to individuals, communities or nations. It may focus on the impact of human conflict and international relations on the environment, or on how environmental problems cross state borders. Environmental security is comprised of three sub-elements: 1) preventing or repairing military damage to the environment; 2) preventing or responding to environmentally caused conflicts; and 3) protecting the environment due to its inherent moral value” and the potential negative consequences of its absence. It is worth emphasising that the shift from viewing the environment solely as a threat to viewing it as a resource to be protected creates new opportunities for security studies. If the increasing environmental stresses (such as droughts, lack of clean drinking water, and access to arable land) and the varying ability to combat them are taken into account, a new approach becomes indispensable in view of the need to fully analyse conflicts and apply different prevention, response, and recovery mechanisms.

Historical analysis of the term

While the need to protect the environment from human-induced degradation began to be articulated in the late 1960s and early 1970s, the concept of environmental security emerged later, during the late 1980s

and early 1990s, as a response to growing concerns about the impact of the degradation of ecosystems and resource depletion on national and global security. Reflections on environmental security are often formulated from the UN perspective. The adoption in 1987 of the concept of sustainable development, which was to be implemented by states that took into account the needs of socio-economic progress, the protection of the environment, and the non-disruption of the development of present and future generations, was of great importance in the evolution and deepening of this approach. Environmental security became the responsibility of states and regions to manage their natural resources to ensure sustainable development. The gradual securitisation of environmental problems occurred alongside our increasing knowledge about the impact of humans on the environment. While the effects of the natural disasters had long been a concern for various disciplines of the natural, engineering, and technological sciences, the issue of the impact of humans on the environment was slow to register in the realms of politics and security, which undoubtedly contributed to events such as the environmental consequences of the chemical plant disaster in Seveso in Italy in 1976, the pesticide plant tragedy in Bhopal in India in 1984, the Chernobyl nuclear power plant accident in 1986, and the devastation in the wake of the Gulf War. This perspective of real dangers to concentrations of people and critical infrastructure meant that, at the turn of the 1990s, environmental security was mainly expressed in terms of the threats posed by environmental degradation and resource depletion to national and global security. This was reflected in the work of Homer-Dixon (1999), who saw the environment as a source of conflict and violence; this fostered the consolidation of a narrow approach to security studies in which national security was traditionally associated with the protection of states' borders against external aggression. Researching environmental security from a realists' perspective thus implies that environmental protection is subordinated to the logic of state interests, while possible environmental problems are solved by force.

An alternative view on security and the development of its environmental sector emerged with the concept of human security, formulated in 1994 in the UN Human Development Programme Report. Human security shifted the focus from states to individuals and emphasised human rights, protection from violence, sustainable development, and

the protection of people against critical pervasive threats. This entailed a rethinking of the relationship between demilitarised security and development. In the context of environmental security, the human security perspective focuses on the impact of environmental degradation on human well-being and the cascading cause-and-effect links between the scarcity of natural resources, underdevelopment, and concurrent conflicts.

Researchers from the Copenhagen School, who represented the constructivist approach, described the mechanisms that explained the creation of social discourses on security and the (de)securitisation of 'traditional' problems (Szulecka & Szulecki, 2011, pp. 210–211). This presented an opportunity to redefine what was previously considered a threat and assign greater attention to interdependence and bond-building, all of which was conducive to the consolidation of the concept of environmental security, especially as it had not always been based on material evidence but rather on scientific evidence provided by knowledge brokers. Recognising that the environment is a security sector makes it possible to focus on the vulnerabilities and threats that arise from the interdependence of different sectors. Within the constructivist approach, it is also assumed that environmental security issues can be constructed as existential threats through speech acts and discourse.

Simon Dalby's works indicated that the environmental factor is a critical issue for global security and that there is a clear link between environmental change and security. He argued that environmental security should be seen as a mechanism of global governance and that there should be a move away from a militarised approach to security towards more sustainable and equitable forms of development.

At the beginning of the 21st century, the focus was placed on the institutional dimension of addressing environmental security issues, including the role played by international institutions in countering climate change and in the discourse in environmental security. Within critical security studies the role played by non-state actors and the need to address the underlying causes of conflict were emphasised. In this context, environmental degradation is treated as a product of unequal power relations and neoliberal economic policies, e.g., the extraction of natural resources by corporations in developing countries, which leads to environmental degradation and social conflict. Feminist security

studies emphasises the need to include the perspectives of women and other marginalised groups in security discourse. The 2013 monograph *Environmental Security. Approaches and Issues* (Floyd & Matthew, 2013) helps to better understand the contemporary debate on security, in which issues such as conflicts over resources or the effects of climate change are increasingly considered by decision-makers engaged in planning security strategies. The theoretical part of the book presents research concepts and methods, while the practical part includes analyses of the relationship between environmental policy, conflict and peace studies, the role of population growth for national security, sustainable development in states' national security strategy, food security, energy security from the perspective of unequal access to resources, and social justice philosophy. The subject literature has evolved over time to cover an ever-widening range of issues and perspectives: from threats linked to environmental degradation to the role of institutions and governance in addressing these problems.

Despite the diversity of perspectives on environmental security, they all share the conviction that it is a key area for national and global security. Effective problem solving in this area will require interdisciplinary cooperation and effective coordination, as is evidenced by, e.g., the provisions of the 2022 US National Security Strategy, in which the point is made that climate change is the greatest of all common threats, and the possibility of finding a solution for it is drastically narrowing, thus making the climate crisis an existential challenge for today.

In Poland, after the political transformation of the 1990s, the security environment was redefined. It was dominated by the traditional approach based on territorial integrity, border protection, and sovereignty, as well as efforts to join international organisations and alliances. Few researchers mentioned the threats posed to the international system by global environmental problems, such as climate warming, the ozone hole, deforestation, the loss of biodiversity, dwindling drinking water supplies, and soil degradation. The Rio de Janeiro Conference in 1992 and the conventions adopted by the UN on the protection of the Earth's climate and biodiversity marked a shift towards a more holistic and multidimensional understanding of environmental protection, although state security was still linked to social, economic, and political factors rather than to environmental factors.

In Poland in the 1990s, essential research studies in the area of environmental security began; their primary aim was to explain the essence of transborder problems and conflicts and environmental degradation, as well as to incorporate global environmental threats into the theory of international relations. Particularly noteworthy here is M. Pietraś's (2000) study, in which he explained the essence of environmental security and presented the international discourse of academics worldwide. The literature emphasises the great importance of interdisciplinary sozological studies. Introduced into scientific circulation in 1965 by W. Goetel, the concept of sozology refers to the search for ways to minimise or exclude the negative effects of human impact on the environment. This concept, however, has failed to excite the interest of security scientists so far. Research studies devoted to environmental security were conducted within the engineering sciences in the 1980s and 1990s in military and firefighting schools, where such topics as chemical and radioactive contamination, forest fires, etc. were addressed. Within the political sciences, studies on global environmental problems and state policy were rare in Poland in the 1990s. In the 21st century, the issue of Poland's security was subordinated to its participation in a coalition to fight international terrorism, while environmental security and the political consequences of climate change were linked to energy security. This area dominated both political and scholarly discussions in Poland related to the environmental foundations of security; within the discipline of security studies, which was established in 2011, systematic studies on the relationships between environmental protection and state security policy were generally not undertaken. These gaps were also evident in the assumptions made for national security strategies, despite increasing international pressure to undertake measures for mitigating and adapting to climate change. Although the repeated experience of weather anomalies which resulted in natural disasters (floods, hurricanes, and droughts) prompted the dynamic development of the crisis management sector at all levels, this failed to translate into either a wider inclusion of environmental issues in security strategies, or Poland having any real international ambitions, involvement, or better inter-institutional coordination. For example, the strategic document on adaptation to climate change of vulnerable sectors drafted under the auspices of the Minister for the Environment was not integrated within the

national security strategy. However, it is worth mentioning here several academic textbooks which systematised environmental security issues (Korcz, 2010; Żuber, 2013) as well as studies on selected environmental problems. A valuable monograph on environmental security from the perspective of the legal sciences was written by P. Korzeniowski (2012), who extensively discussed its constitutional dimension. In the second decade of the 21st century, a team of researchers from the University of Siedlce conducted an extensive study on environmental security. D. Trzcińska and J.S. Kierzkowska (2020) analysed selected issues of environmental security implemented by public authorities at different levels of administration. These examples paint a picture of young but multi-discipline studies on environmental security undertaken in Poland, which, however, still lack clear-cut definitions or any holistic review of the subject. General references to environmental issues included in the National Security Strategy of Poland are not conducive to in-depth empirical studies in this area, even though the vast majority of threats and risks to society's existence listed in national crisis management plans concern natural phenomena or anthropogenic pressures on the environment. The reason for this state of affairs in Poland is the domination of the traditional, state-oriented perspective on national security over an individual-oriented human security perspective. Recent studies on the security of local communities, as well as increasingly frequent studies on civil protection and the protection of quality of life and health, should contribute to the furthering of environmental security studies.

Discussion of the term

Traditional security threats are usually defined as threats to national security in the external and internal dimensions and are related to the territorial integrity and sovereignty of the state. They are often related to the use of diplomacy, deterrence, and military force in response to interstate conflicts, terrorism, and aggression. Non-traditional security threats – such as climate change, pandemics, natural disasters, transnational crime, and cyberattacks – although not military in nature, can have a significant impact on the state's security and prosperity. Such threats require a broader spectrum of responses, including international

cooperation, multilateral agreements, economic sanctions, and the implementation of environmental policies. This corresponds to a more liberal approach in which environmental security is seen as a problem necessitating collective action. In the constructivist approach, environmental security produces new norms and values that shape the identities of societies, which in turn translates into state politics. Changes in politics which introduce non-military critical issues into the discourse (e.g., climate change) require a new way of thinking about security and countering threats to security.

Within the epistemological approach, four central debates can be distinguished: 1. the debate over the causes of conflict (i.e., whether scarcity, abundance, or political factors lead to violent environmental conflict); 2. the debate over whether security studies should be devoted to violent conflict only or also to reductions in human choice, welfare, and well-being; 3. the debate over the resource scarcity and conflict thesis; 4. the debate over whether, under conditions of environmental stress, cooperation or conflict is more likely (Floyd & Matthew, 2013, pp. 1-10).

From the perspective of security studies, environmental threats (being non-traditional threats) add an interdisciplinary element to the notion of security. The recognition of environmental risks as being correlated with economic and social factors and thus relevant to the security of states and populations enables decision-makers to integrate environmental issues into national security policies and strategies.

The complexity of environmental security is expressed in the ways in which it is analysed. For example, environmental factors can play a role in triggering or exacerbating conflicts and wars in the form of competition for scarce natural resources such as water, raw materials, or land, which can lead to tensions between communities. Environmental degradation caused by military operations (e.g., the Gulf War or the war in Ukraine) can have long-lasting and detrimental effects on human health and the environment, leading to threats to the survival of large groups (due to missiles with nuclear warheads or damaged nuclear power plants). Hence, traditional studies on war and peace must take environmental factors into account when analysing and predicting conflicts and their consequences.

Peace studies, as a sub-field of security studies, focuses on the causes of conflict, the nature of peace, and the conditions necessary

to maintain peace. Studying the conditions and nature of peace from an environmental perspective can provide insights into the links between environmental degradation, resource scarcity, and conflict, notable examples being the conflicts in the Nile basin over water resources, or those in Darfur over drought. Learning about the causes of conflicts can in turn facilitate the development of strategies to prevent or mitigate them.

There are numerous environmental threats that can trigger conflict. Apart from the aforementioned water scarcity, which leads to hunger, increased mortality, and disease, natural disasters also contribute – often in violent ways – to a loss of security. Floods, hurricanes, and earthquakes cause economic damage, casualties, crime, and displacement. Long-lasting air, soil, or water pollution significantly affects human health and causes diseases and food insecurity. The last factor is also related to resource scarcity, which results from biodiversity loss; such scarcity results in instability in ecosystems, food, and production chains, which in turn leads to socio-political conflicts. Climate change is such a complex threat that it combines all the above and can lead to cataclysms both on a global scale, e.g., sea levels rise, and locally in the form of more frequent, extreme, and destructive weather events.

Effectively countering the aforementioned threats requires the identification of concrete problems. However, given their multifaceted and cascading nature as well as the geographical and temporal scale, this is a very difficult task which requires a coordinated and interdisciplinary approach. Therefore, analyses of environmental threats include such issues as vulnerability, environmental exposure and sensitivity, and environmental risks. The Polish National Disaster Management Plan of 2020 establishes a rating level for the likelihood of the occurrence of a threat that is scaled from very probable, to probable, possible, rare, or very rare, and for its impact on national security, rated on a scale from negligible to small, medium, large, or catastrophic.

The importance of environmental security is increasing. It is a means of preventing conflicts over environmental degradation and competition for natural resources that often lead to the destruction of these resources. Therefore, the protection of such resources as forests, waters, and wildlife is essential for the survival and maintenance of human prosperity by means of preventing negative economic or cultural outcomes.

Environmental security is crucial in protecting human health against the harmful effects of pollution, hazardous waste, and other anthropogenic threats, where exposure leads to a range of health problems, especially civilisation diseases. Mitigating climate change will therefore be crucial for the maintenance of sustainable development and requires coordinated international, national, and local action.

The Paris Agreement was adopted internationally in 2015 with the goal of limiting the increase in the Earth's average temperature to 2° Celsius, and preferably stopping it at 1.5°. This voluntary action establishes a critical benchmark for policies and strategies for responding to environmental challenges. This Agreement promotes biodiversity conservation and seeks to prevent acts of its unlawful violation, e.g., within the framework of the protection of endangered species and combating poaching. At the regional level, countries are taking coordinated action of a binding nature (e.g., European Union climate law) or employing soft laws (e.g., the African Union Agenda 2063). Near-border and trans-border measures, as well as those undertaken at the national level (which are usually linked to the legal, institutional, educational, or investment spheres and cover energy, agriculture, and other economic sectors) are important. Locally, the foundations for environmental security measures are laid by actions undertaken by communities and individuals which address local determinants, such as waste management, urbanisation, or resource conservation.

The key stakeholders in environmental security policy are governments, which have the relevant authority and resources to develop and implement environmental security policies to counter threats (security strategies, adaptation and mitigation strategies, and sustainable development plans). The role of international organisations is to help coordinate and facilitate the measures taken to address global environmental security challenges. NGOs, academic institutions, and expert groups can influence policy through research, advocacy, and public education. The private sector, including businesses and corporations, can also contribute to addressing the aforementioned threats by adopting sustainable practices and investing in environmentally friendly technologies. Local communities are often on the front line of potential environmental threats and can therefore play a key role in identifying and addressing specific problems.

Given the importance of the UN Security Council's role in global security, it is worth mentioning at this point that it increasingly acknowledges the links between environmental issues and international peace and security. Action in this direction began in the 21st century but failed to achieve a full agreement among its members to deal with environmental issues. In recent years, the Security Council has held several debates and issued resolutions (e.g., No. 2349 of 2017) that included recognition that environmental degradation and resource scarcity can exacerbate conflicts, pose a threat to stability, and even lead to an increase in terrorism and violent extremism. The Council emphasises the need for international cooperation to address the underlying causes of environmental degradation and to support communities affected by it. This is especially true in areas afflicted by drought, desertification, and water scarcity, such as the Sahel and the Horn of Africa. In 2009, the North Atlantic Treaty Organisation (NATO) adopted an environmental policy that acknowledges the potential impact of environmental degradation on military operations and security. NATO also researches and analyses the relationship between climate change and security, including analysing the impact of its operations on the environment in terms of the reduction of greenhouse gas emissions and the management of hazardous waste. In its 2022 Strategic Concept, NATO sought to integrate climate change, human security, feminist approaches, and the peace agenda into its key activities. The European Union (EU) is strongly committed to addressing environmental security issues, as it recognises that environmental degradation and climate change can exert a significant impact on human security and global stability. Environmental security is expressed through the notion of the greening of European security and defence, as manifested by the adoption of the 2020 Climate Change and Defence Roadmap guidelines. EUAM CAR and EUCAP Sahel civilian missions have employed environmental advisors to ensure that negative impacts on nature and other resources, including energy consumption, are reduced (e.g., the 'smart camp' pilot study in Mali). Similarly, the concept of energy optimisation and environmental protection in EU military operations has been in place since 2021. The European External Action Service has started to draft binding documents in which climate change and environmental issues will be integrated into the Service's operational tasks. The EU Council conclusions of 25 January 2021

recognised climate change as an existential threat to humanity (Fiott & Cullman, 2023, pp. 177–178).

Systematic reflection with conclusions and recommendations

The paradox in understanding the essence of environmental security stems from the very nature of the threats involved, which means that its inclusion in security studies most often goes beyond the traditional (i.e., realist) research approaches, in which researchers focus on rivalries, conflicts, and their militarisation. While environmental threats may be a cause of conflict and pro-environmental measures are a means of building a sustainable environment (local, regional), even peace studies are embedded in the logic of the game of interests. In this sense, environmental security is also present in this realist approach within security studies. However, ensuring environmental security and the problem-solving related to it requires a much greater interdependence of actors and far more cooperation in order to jointly overcome environmental threats than is assumed in the traditional approach.

Today, the negative consequences of environmental change – climate change in particular – are increasingly frequently researched, visible, and empirically experienced. As a result, they are treated as a threat multiplier which affects security at all levels: the individual level, the state level, and the global system. Particularly in the last of these, it becomes necessary to act comprehensively using the latest knowledge and technology, as only this offers hope for solving the escalating problems and for saving the planet. Despite attempts to counter global climate change under the 2015 Paris Agreement, the issue of responding to environmental change has not become a security policy priority. Even given the IPCC scenarios and awareness of the potential catastrophic consequences of deregulating the Earth's climate system, states and international organisations seem incapable of accepting effective responsibility for countering and financing climate change mitigation.

An important argument in this discussion is the lack of (effective) security policy measures with which state actors are capable of responding to multi-factor and trans-border threats that extend over time. Multi-level

networked coordination involving individuals, local governments, central institutions, and international organisations is indispensable here.

Environmental security is closely linked to national security policy as environmental risks and threats can undermine the state's security and stability. Environmental degradation, climate change, and resource scarcity can contribute to social, economic, and political instability. There are several challenges that states face when implementing environmental security policies: first, they need to be able to balance competing priorities between the environment and economic growth; second, there must be the will to act politically, which is difficult to arouse in the presence of other pressing problems; third, environmental security policies require substantial resources (including funds, personnel, technology, and knowledge); fourth, opportunities for cooperation are limited when environmental problems cross borders and the interests of states are divergent; and fifth, threats to environmental security can be complex and unpredictable, which makes it difficult to design effective policies. Uncertainty about the nature and extent of threats, including scientific uncertainty, is not conducive to the development of environmental security.

Another problem lies in the nature of environmental threats. The complexity of the issue also concerns the basic function of security policy, which is to provide the conditions conducive to the development of the state and its society. The question of how environmental protection serves human security is certainly crucial for further studies on security and the conceptualisation of state security policy. Sudden events and disasters, both natural and anthropogenic, trigger corrective measures in a reactive manner. Relevant services and guards are engaged, and crisis management systems are set up and maintained. However, knowledge of the intensification of weather and climate anomalies and their destructive impact on human resources and the environment should trigger preventive measures, especially because it has been repeatedly proven that the costs of inaction exceed the costs of disaster recovery.

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