EVOLUTION OF THE RISKS IN THE BLACK SEA REGION SECURITY ENVIRONMENT

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Summary: The report examines the evolution of risks and threats within the security environment of the Black Sea region, in the context of the shifting geopolitical landscape and the transformation of international relations. It analyses the processes shaping security dynamics -ranging from traditional military risks to contemporary hybrid, cyber, and cognitive threats. The study incorporates the theoretical and methodological foundations of the „security environment" concept and the factors defining it. It identifies key trends and dynamics affecting regional security, such as economic and energy dependencies, technological vulnerabilities, and socio-informational influences. Emphasis is placed on the necessity for state and international institutions to adapt to the new realities of hybrid and cognitive warfare. These phenomena are altering traditional perceptions of security and demand integrated, flexible, and proactive counteraction strategies.

Keywords: Black Sea region, security environment, evolution of risks, new risks and threats

INTRODUCTION

The Black Sea region is increasingly consolidating its position as a strategically significant zone where the geopolitical, economic, and social interests of regional and global actors intersect. The complexity of the region's security environment stems not only from the historical legacy of conflict and cooperation, but also from the evolving dynamics of international relation following 2014, marked by the annexation of Crimea, the subsequent military conflict in Ukraine in 2022, and the escalation of the conflict in the Middle East in 2026. These developments have been accompanied by an intensification of both military and hybrid strategies which are fundamentally reshaping the regional security balance.

The contemporary security environment is characterized by multifaceted threats: traditional military-political risks, energy and economic vulnerabilities, hybrid and cyber operations, as well as cognitive influences aimed at shaping public perception and strategic attitudes. In this context, understanding the dynamics of risks and threats is essential for the formulation of adaptive and collective security policies.

This report aims to provide a comprehensive analysis of the theoretical and methodological foundations of the „security environment“ concept and the factors that define it within the Black Sea region, while systematizing the evolution of risks and threats. Special attention is paid to the new dimensions of security threats - hybrid and cognitive warfare - which are changing traditional defense models and requiring integrated strategies for regional stability.

1. The concept of „security environment“ and its conceptual evolution

The concept of „security environment“ has become firmly established in contemporary academic and strategic discourse as an integrated analytical category used to systematize and analyze the interactions between actors, processes, and threats.

Applied to the analysis of the Black Sea region, the concept of the security environment allows for the consideration of specific regional dynamics characterized by the intersection of diverse geopolitical interests, historically determined contradictions, and growing strategic competition. Unlike traditional approaches focused on individual threats or actors, analyzing the security environment in the Black Sea region enables the tracking of interconnections between military-political processes, energy dependency, informational influence, and technological vulnerabilities. This analytical approach is particularly relevant under conditions of conflict hybridization, where the boundaries between peace and war, internal and external threats, and military and non-military instruments become increasingly blurred. In a practical dimension, the security environment can be viewed as a configuration of risks and threats faced by states and the ways in which they respond to them. This emphasizes its dynamic nature, subject to constant changes driven by globalization, technological development, transnational threats, and geopolitical processes (Collins 2022).

Within this context, the „security environment“ functions not only as a descriptive but also as an explanatory tool for identifying the trends, vulnerabilities, and adaptive mechanisms that determine resilience and stability in the Black Sea region.

The security environment in the Black Sea region is shaped by the influence of numerous interconnected factors that define the dynamics of regional stability and vulnerability. Of key importance is the geographical and strategic position of the Black Sea as a transit transport and energy corridor between Europe and Asia. The geopolitical dynamics - driven by the annexation of Crimea and the full-scale war in Ukraine from 2022 to the present are characterized by rising tensions and the expansion of military presence. The Black Sea region is becoming a key strategic corridor with a direct implication on European security through the deepening of regional instability and strategic polarization. Economic, energy, and technological factors exert a significant influence on the security environment by intensifying

interdependencies, increasing the vulnerability of critical infrastructure, and expanding the scope of hybrid threats.

2. Evolution of security risks and threats

Changes in the security environment of the Black Sea region lead to a meaningful transformation in the nature, intensity, and complexity of security risks and threats. While traditional military-political risks dominated in earlier periods, contemporary dynamics are characterized by increasing complexity, in which classical forms of conflict are combined with hybrid, cyber, and cognitive influences. This evolution reflects not only a change in the means and methods of exerting influence but also an expansion of the spaces of confrontation - from the physical and informational to the cognitive dimension. In this context, analyzing the evolution of challenges and threats allows for a deeper understanding of contemporary models of insecurity and outlines the need for adaptive and integrated approaches to security management in the Black Sea region. These can be grouped into several main categories: military-political risks and conflicts; energy security and competition for resources; transnational crime and illegal migration; environmental risks and threats; and hybrid, cyber and cognitive threats.

Traditional Military-Political Risks

The region is characterized by a high degree of militarization and an increased frequency of military exercises, which raises the risk of incidents, escalation, and misinterpretations of strategic intentions (Szenes 2023). Unresolved and so-called „frozen conflicts“, as well as differences in the strategic orientation of regional states, further complicate the military-political situation and hinder the establishment of stable mechanisms for trust and arms control (Buzan, Wæver 2003). The developments after 2014 led to a revival of the logic of power confrontation and the erosion of established security regimes, with military force re-emerging as a tool for achieving geopolitical goals. The Russia-Ukraine conflict has become the most significant geopolitical and military-political catalyst for rearranging the strategic environment in the Black Sea region since the end of the Cold War. It fundamentally altered the security environment by leading to the militarization of the area and an unprecedented strengthening of NATO’s eastern flank (Stent 2019). Russia utilizes the Black Sea Fleet to block Ukrainian ports, control maritime transport routes, and restrict NATO's access to the eastern waters. Consequently, maritime security has been severely compromised, and shipping in the area faces unprecedented risks -mines, blockades, attacks on infrastructure, and the disruption of logistics chains (Craciun 2022).

From a political perspective, the war deepened the divide between Russia and the Euro-Atlantic community, leading to a rapid convergence of Ukraine with the EU and NATO.

Several states in the region bolstered their defense capabilities and took steps toward deeper integration into collective security systems. The war transformed the Black Sea from a peripheral region into a frontline of geopolitical confrontation between Russia and the West, with long-term consequences for security, the economy, and political stability(Baev 2021; Craciun 2022). All of this demonstrates that the Russia-Ukraine war is not an isolated conflict but a decisive geopolitical factor shaping new lines of division while simultaneously creating prerequisites for strengthening the Euro-Atlantic presence and cooperation in the Black Sea.

Energy Security and Competition for Resources

Energy security is a key factor for the stability of the Black Sea region, as the area represents a vital transit corridor for the supply of natural gas, oil, and other strategic resources to Europe and Asia. Control over transport routes, terminals, and subsea infrastructure provides regional and external actors with significant leverage, often leading to strategic competition and potential instability (Lutzkanova 2023). Competition for resources manifests not only in the economic and trade spheres but also as an element of geopolitical confrontation (Szenes 2023). In this context, ensuring energy security requires integrated strategies that include the protection of critical infrastructure, regional cooperation, and coordinated policies for sustainable resource management.

Traditionally, Russia has been the leading supplier of energy resources to Europe, and the Black Sea region plays a central role in this strategy. Through infrastructure projects such as Blue Stream, Turk Stream, and South Stream, Moscow aims to maintain and expand its energy influence in Southeast Europe, providing it with serious leverage for political and economic pressure. Control over energy flows, pipelines, and liquefied natural gas terminals allows it to influence the domestic and foreign policies of certain states in the region, especially during crises (Giles Keir 2016).

The Black Sea functions not only as a transit corridor but also as a region of increasing importance due to the discovery of new natural gas deposits, particularly in the Exclusive Economic Zones of Bulgaria, Romania, and Turkey. The development and exploitation of these resources have the potential to increase the energy independence of individual states and enhance the region's geopolitical significance. In response, the EU and NATO are strengthening cooperation in energy security, including infrastructure investment, the development of common reserves, and the protection of critical energy sites. Thus, energy becomes not just an economic arena, but a geostrategy for competition and cooperation that determines the long-term stability and security of the Black Sea region (Craciun 2022).

Transnational crime and illegal migration

Transnational crime and illegal migration have emerged as risk factors affecting the security environment in the Black Sea region. Its geographical position, connecting Europe, the Middle East, and the Caucasus, makes the Black Sea a key transit corridor for various forms of organized crime, including human trafficking, drugs, weapons, and goods smuggling (Shelley 2014). These criminal activities are often carried out by well-organized transnational networks exploiting weaknesses in border control, corruption, and institutional deficits. Parallel to this, military conflicts, economic instability, and political crises in neighboring regions intensify migratory pressure and contribute to the rise of illegal migration toward European states (Triandafyllidou 2024). An additional problem is the migration flows of criminal and terrorist groups using illegal routes for trafficking weapons and fighters. Corruption and weak institutional mechanisms in some Black Sea states facilitate the expansion of these networks.

Transnational crime and illegal migration are not merely social or humanitarian issues—they represent a strategic risk factor that hostile actors can use as a tool for political pressure, destabilizing internal security, and undermining regional cooperation (Craciun 2022).

Environmental risks and threats to maritime security

Environmental risks and threats occupy an increasingly prominent place in the contemporary security environment of the Black Sea region, where the ecosystem is characterized by a high degree of vulnerability and limited self-recovery capacity. Intensive economic activity, energy infrastructure, and coastal urbanization create prerequisites for marine pollution, biodiversity loss, and increased risk of ecological accidents.

Key environmental threats include industrial pollution, intensive shipping, pressure from energy and infrastructure projects, overfishing, illegal waste, and climate change. The Black Sea receives substantial amounts of pollutants from major rivers like the Danube, Dniester, and Dnieper. This leads to eutrophication, loss of biodiversity, and degradation of the marine ecosystem, directly affecting the livelihoods of coastal communities. Military conflicts significantly exacerbate these risks. Pollution from military actions is observed, including fuel leaks, infrastructure destruction, sunken ships, and risks from mined maritime zones. According to assessments by the Black Sea Commission (2023), military operations in the northwestern Black Sea have increased ecological risks and hazards to navigation.

Addressing these issues requires an integrated and coordinated regional approach, including enhanced maritime surveillance, the establishment of early warning mechanisms, increased coordination between naval and environmental structures, and synchronized actions with the EU and NATO. Protecting the Black Sea is not only an ecological issue but a key element of regional security and stability.

Hybrid, cyber, and cognitive threats

Hybrid, cyber and cognitive threats are becoming some of the most dynamically evolving and nearly impossible-to-neutralize security risks in the Black Sea region. They are characterized by a combination of military, economic, informational, and technological instruments aimed at undermining state stability, eroding public trust, and hindering an effective response from alliances such as the EU and NATO (Giles Keir 2016). These threats do not require overt military aggression and often unfold below the threshold of armed conflict, making them particularly effective for exerting strategic influence without violating international law, relies on advanced information and communication technologies (Lahmann et al. 2025). Cyberspace is establishing itself as a key field of confrontation, where attacks against critical infrastructure, state institutions, and communication systems create conditions for destabilization without the formal use of military force (Krastev 2021).

Tracing the evolution of security threats also reveals the growing importance of the cognitive dimension, which exerts a significant influence on the security environment in the Black Sea region. Informational influence, disinformation, the manipulation of public attitudes, and strategic narratives are used to undermine trust in institutions and influence decision-making processes(Lahmann et al. 2025). These threats are amplified by historically accumulated contradictions, social vulnerabilities, and the continuous development of digital capabilities, transforming them into a substantial factor for long-term instability.

3. Conclusion and Findings

The analysis indicates that, following 2014, a substantial shift in the nature of threats has taken place, necessitating a reassessment of traditional security concepts predominantly oriented toward military power. The contemporary security environment requires an expansion of both analytical and policy focus to encompass the non-material dimensions of security, including the information environment and cognitive domain, which are increasingly emerging as key arenas for strategic influence and impact.

Based on the analysis provided, it can be concluded that the resilience of the Black Sea region depends not only on the balance of power but also on the ability of states and international actors to recognize and effectively address the complex and multidimensional nature of contemporary threats. The lack of a comprehensive and shared vision for regional security, combined with competing geopolitical interests and ongoing conflicts, limits the prospects for sustainable stabilization of the region and creates prerequisites for periodic crises and escalating tensions. In this context, security should be viewed not as a static state, but as a dynamic process of continuous adaptation to a shifting strategic environment.

The analysis of the primary security risks and threats in the Black Sea region allows for several key conclusions to be drawn:

1. **Military-political risks** remain the most serious source of instability. The Russia-Ukraine war has dramatically altered the balance of power, intensified NATO's military presence, and created new lines of division. Additionally, frozen conflicts in the Caucasus and Moldova continue to block processes of regional cooperation and development.

2. **Energy security** is among the most vital dimensions of regional stability. Competition for control over energy routes and the dependency on Russian supplies transform the energy sector into an instrument for political influence.

3. **Transnational crime, illegal migration, and environmental risks** pose additional challenges to the internal security of states, requiring enhanced cooperation between national and international structures.

4. **Hybrid, cyber, and cognitive threats** are establishing themselves as a key element of the strategic environment. They undermine trust in institutions and allow external actors to exert influence without overt military intervention.

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