

**“CAROL I” NATIONAL DEFENCE UNIVERSITY
CENTRE FOR DEFENCE AND SECURITY STRATEGIC STUDIES**



STRATEGIC IMPACT

No. 3 [88]/2023

Open-access academic quarterly, nationally acknowledged
by CNATDCU, indexed in CEEOL, EBSCO, Index Copernicus,
ProQuest, WorldCat and ROAD international databases

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Șos. Panduri, no. 68-72, Sector 5, 050662,
Bucharest, Romania
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Website: https://cssas.unap.ro/index_en.htm
E-mail: impactstrategic@unap.ro

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CONTENTS

EDITOR'S NOTE

Florian CÎRCIUMARU, PhD 5

POLITICAL-MILITARY TOPICALITY

Weaponizing Communication. Words vs. Bullets in the Russian-Ukrainian War

Iulia-Alexandra COJOCARU..... 9

NATO AND EU: POLICIES, STRATEGIES, ACTIONS

EU's Southern Neighbourhood Policy towards Libya and Syria

Vasile-Dumitru RAȚIU 26

SECURITY AND MILITARY STRATEGY

Romania's Space Aspirations and the EU Space Strategy for Security and Defence

Ulpia-Elena BOTEZATU..... 37

GEOPOLITICS AND GEOSTRATEGY: TRENDS AND PERSPECTIVES

Climate Change and Security: the Case for Black Sea

Maria-Emanuela MIHAILOV, PhD..... 54

Lucian GRIGORESCU

Romel PERA

Vulnerabilities Transposed by Climate Change Effects in Ecological Risks and Threats to the National Security

Mirela ATANASIU, PhD..... 72

BOOK REVIEW

Mapping Non-State Actors in International Relations,

by Marianna Charountaki and Daniela Irrera

Mirela ATANASIU, PhD..... 89

GUIDE FOR AUTHORS 94



EDITOR'S NOTE

The current Strategic Impact issue (number 88/2023) covers timely research findings within the realm of political-military topicality, EU's policies, security and military strategy, and trends and perspectives in geopolitics and geostrategy, comprising a total of five articles, followed by the **Book Review** and **Guide for authors** rubrics.

Political-Military Topicality. Iulia Alexandra COJOCARU, PhD Student, in her research "*Weaponizing Communication. Words vs. Bullets in the Russian-Ukrainian War*" argues that, in the light of the ongoing Russian-Ukrainian conflict, it is necessary both for the public opinion and for the rightful authorities to adapt and respond effectively to the security environment dynamics. Starting from identifying some key-aspects regarding the background of the Russian-Ukrainian relations that Kremlin has exploited in developing their hostile information campaigns, the author then observed how these issues were included in the Russian officials' discourse through various messages. Next, she presented Ukraine's information strategy carried out through their StratCom campaigns, analysing some elements of Ukraine's President discourses, and concluding with the fact that Ukraine's StratCom campaigns have decisively contributed to supporting its resistance in the first year of constant attacks from an undeniably stronger enemy.

NATO and EU: Policies, Strategies, Actions. In the next article, "*EU's Southern Neighbourhood Policy towards Libya and Syria*", Vasile-Dumitru RAȚIU, also a PhD Student, explains how the European Union (EU) implemented and intends to continue the neighbourhood policy with two states that went through the "Arab Spring" and became conflict zones, namely Libya and Syria. The main objectives pursued by the EU are stabilization of neighbouring countries, promotion of EU key interests and facilitation of regional cooperation. Also, the significant increase in trade relations between the EU and the failed states leads to a deepening of bilateral relations, and over time can create an environment conducive to state reconstruction, where the citizen is at the centre of attention and the rulers' own interests are no longer at the forefront.

Security and Military Strategy. Ulpia Elena BOTEZATU in the 3rd article "*Romania's Space Aspirations and the EU Space Strategy for Security and Defence*" explores the interplay between European Union's Space Strategy for Security and Defence and Romania's space aspirations, analysing its key facets and their potential effects. Investigating elements such as shared threat awareness, space system resilience, response strategies, and responsible behaviour in outer space,



the article provides insights for stakeholders to harness EU space capabilities. The conclusion of the article is that the EU Space Strategy for Security and Defence addresses space intricacies with political, operational and other fields of action, and by focusing on vital components such as threat understanding, system protection, responsive measures, and cooperative behaviour, the article sheds light on EU Space Strategy's strategic importance in the defence and security realms.

Geopolitics and Geostrategy: Trends and Perspectives. In the next article "*Climate Change and Security: the Case for Black Sea*", Maria Emanuela MIHAILOV, PhD, Captain (N) Lucian GRIGORESCU, and Captain (N) Romel PERA explore priorities for future research in the area of climate change and cover the necessary adjustments to facilities, materials, and equipment due to progressive weather changes, stressing the fact that, as climate change poses significant challenges to global security by exacerbating existing threats and creating new ones, competition over scarce resources such as food, water, and land will likely increase as extreme weather events and temperature rise will become more frequent. Climate-related migration is expected to increase political tensions, and in some regions, could contribute to instability and conflict. The changing climate will also impact infrastructure, the economy, and public health, which will have far-reaching security implications. The current issue of climate change highlights the spectre of a new source of instability and conflict that can affect national/international peace and security, and the paper presents the specialized literature on short-term climate change and its possible influence on the Black Sea regional security.

Also, under the umbrella of this rubric, in the article "*Vulnerabilities transposed by climate change effects in ecological risks and threats to the national security*", our colleague, Senior Researcher Mirela ATANASIU, PhD, is pointing out the fact that, as climate changes effects determine major transformations of interactions between socio-economic and natural environment. These phenomena directly affect the overall security systems, vulnerabilities that are a constitutive element of the climate security equation seen as a logical construction of a causal nature, respectively: climate changes' effects are the source of ecological threats and associated risks facilitated or multiplied by exploited vulnerabilities whose presence/absence gives the measure of the impact over the respective security system. In this regard, the topic of the article focuses on a narrower subject, namely the identification of vulnerabilities that have the potential to be exploited in generating ecological threats and associated risks against Romanian national security.

The current edition includes the ***Book Review*** rubric that presents the first volume ("Mapping Non-State Actors in International Relations") from the series called "Non-State Actors in International Relations" (NAIR), reviewed by authors Marianna CHAROUNTAKI, Senior Lecturer in International Politics within the University of Lincoln, UK, and Daniela IRRERA, Professor of Political Science and



International Relations, School of Advanced Defence Studies within the University of Catania, Italy.

Also, this edition includes the ***Guide for authors***, a mandatory reading for those who wish to disseminate the research results in our journal.

For those discovering *Strategic Impact* for the first time, the publication is an open-access peer reviewed journal, edited by the Centre for Defence and Security Strategic Studies and published with the support of “Carol I” National Defence University Publishing House, and, also, a prestigious scientific journal in the field of military sciences, information and public order, according to the National Council for Titles, Diplomas and Certificates (CNATDCU).

Strategic Impact is an academic publication in the field of strategic defence and security studies journal that has been published since 2000 in Romanian, and since 2005 in English, in print and online. The articles are checked for plagiarism and scientifically evaluated (double blind peer review method). The thematic areas include political science, international relations, geopolitics, the political-military sphere, international organizations – with a focus on NATO and the EU information society, cyber security, intelligence studies and military history. Readers will find in the pages of the publication strategic-level analyses, syntheses and evaluations, views that explore the impact of national, regional and global dynamics.

In terms of international visibility – the primary objective of the publication – the recognition of the scientific quality of the journal is confirmed by its indexing in the international databases CEEOL (Central and Eastern European Online Library, Germany), EBSCO (USA), Index Copernicus (Poland), ProQuest (USA), and WorldCat and ROAD ISSN, as well as its presence in the virtual catalogues of the libraries of prestigious institutions abroad, such as NATO and military universities in Bulgaria, Poland, Czech Republic, Hungary, Estonia etc.

The journal is distributed free of charge in main institutions in the field of security and defence, in the academia and abroad – in Europe, Asia and America.

In the end, we encourage those interested in publishing in our journal to rigorously survey and assess the dynamics of the security environment and, at the same time, we invite students, master students and doctoral candidates to submit articles for publication in the monthly supplement of the journal, *Strategic Colloquium*, available on the Internet at <http://cssas.unap.ro/ro/cs.htm>, indexed in the international database CEEOL, Google scholar and ROAD ISSN.

Editor-in-Chief, Colonel Florian CÎRCIUMARU, PhD
Director of the Centre for Defence and Security Strategic Studies



WEAPONIZING COMMUNICATION. WORDS VS. BULLETS IN THE RUSSIAN-UKRAINIAN WAR

Julia-Alexandra COJOCARU

In the light of the ongoing Russian-Ukrainian conflict, the article is built around the aim of contributing to a better understanding of the current information environment, as it is necessary both for the public opinion and for the authorities to adapt and respond effectively to the security environment dynamics. The present paper seeks response to the following research question: “How did the Ukrainian Strategic Communication (StratCom) campaigns function in supporting the Ukrainian state to resist the first year of war?”. For the development of the answer, we relied on a qualitative approach, analysing several discourses of the Ukrainian President in mass-media, in the first year of the war.

We started from identifying some key-aspects regarding the background of the Russian-Ukrainian relations that Kremlin has exploited in developing their hostile information campaigns, such as common historical landmarks or the religious, cultural and linguistic values shared by these two states. Next, we observed how these issues were included in the Russian officials’ discourse through various messages. Further, we presented Ukraine’s information strategy, implemented beginning with 2014 (after Crimea’s annexation), that was mainly carried through their StratCom campaigns, so that in the final part of the article to analyse some elements of Ukraine’s President discourses, starting with the first days of the war.

Our conclusions lead to the fact that Ukraine’s StratCom campaigns have decisively contributed to supporting its resistance in the first year of constant attacks from an undeniably stronger enemy.

Keywords: *Information Environment (IE); Public Communication; Hostile information campaign; Strategic Communication (StratCom); Russian-Ukrainian War; Hybrid Warfare.*

*** Julia-Alexandra COJOCARU is a PhD Student within the Doctoral School of “Carol I” National Defence University, Bucharest, Romania. E-mail: cojocaruiulia@unap.ro**



Introduction¹

Today's information environment (IE) is characterized by constant dynamics and rapid changes, as the way people are interacting with the world around them has also changed fundamentally (NATO Standardization Office (NSO) 2020). IE may be the most comprehensive security environment, and the actual most large-scaled battlefield, being "comprised of the physical, virtual and the cognitive dimensions, in which humans disseminate and receive, interpret and process information to create knowledge, and the inter-relationship between them, as activities that take place in the physical and virtual dimensions create perceptions in the cognitive dimension" (NATO Standardization Office (NSO) 2020, 7). Moreover, in the age of hybrid conflicts, which involve a combination of different hostile actions, public communication has a great potential in supporting an actor's interests and objectives, as a wide range of effects can be produced in the cognitive dimension of the IE.

Evidence to date reveal that actors have exploited communication's potential in influencing perceptions and representations in two main different manners. On the one hand, aggressors have carried out hostile communication campaigns against their targets, promoting and pursuing their interests through propaganda and disinformation by using different means. We call this stance of communication *destructive*, as its main purpose is to mislead or deceive a targeted audience's perceptions of reality, in order to influence their behaviours and decisions, in the aggressor's advantage. In the military literature, this concept is called reflexive control².

On the other hand, actors have also employed communication means and techniques in peaceful purposes, such as maintaining public order – by informing their own residents with regard to law-matters, for instance, or to promote their core-values and principles in the world; in other cases, communication is used to counter hostile information campaigns. In this respect, we will name this stance of communication *constructive*, as its main purpose is to contribute to a public perception on reality as it is, supporting people to take decisions that best suits their purposes. We consider StratCom to be one of the forms of constructive communication (Cojocaru 2022).

In the context of the ongoing Russian-Ukrainian conflict, our objective is to observe to what extent the belligerent parties have employed these two stances of communication during the last year and before, and what were the effects for each of them.

¹ A.N.: Parts of this paper were presented via online participation in the International Conference *NATO in the Face of Emerging Security Challenges on its Eastern Flank*, held on March 31st, 2023, in the third section, "Russia and information warfare", and organised by War Studies University, Poland.

² Reflexive control – "a means of conveying to a partner or an opponent specially prepared information to incline him to voluntarily make predetermined decision desired by the initiator of the action" (Timothy 2004).



Thus, we have examined some aspects of Ukraine's information environment evolution, in three specific timeframes: the period immediately preceding 2014 – with emphasis on Kremlin's hostile information campaign upon the Ukrainian people; the period between 2014 and 2022 – with a focus on Ukraine's course of actions on combating the Russian information threats; and the first year of war (February 2022-February 2023) – with emphasis on the StratCom campaigns Ukraine carried out during this timeframe.

1. Russian Hostile Information Campaigns Targeting Ukraine, until 2014

Our analysis starts from the fact that before Russia initiated the conventional military actions against the Ukrainian state, they had been conducting a psychological warfare, where the hostile information campaigns were used as weapons upon both the Ukrainian *people and authorities*. Therefore, it is necessary to understand the causal mechanisms and relations that have introduced (or led to) the present hybrid³ conflict by first identifying some background issues that Kremlin exploited in developing its strategy upon the Ukrainian state and its people.

As Russia and Ukraine have a complex and intertwined history which spans centuries, there is a series of *factual aspects* that Moscow relied on in their hostile information campaign. Our intent is to observe in which way these historical facts were used in the messages Russia used upon Ukraine *until 2014*.

1.1. Background of the Russian-Ukrainian Relations

Historical Landmarks

- There is a historical timeframe in the Middle Ages (9th to mid-13th century), when today's Russia, Ukraine, and Belarus were united under the Ancient Rus (or Kivean Rus), the first East-Slavic state. Over time, the Kievan Rus became increasingly fragmented and eventually dissolved, with its territories coming under the control of various regional powers. During the 16th and 17th centuries, the territories that today form Ukraine were part of the Polish-Lithuanian Commonwealth, while Russia gradually expanded its territory to the East and South (Encyclopaedia Britannica 2023);

- In the late 18th century, Russia annexed much of what is now Ukraine, and the region became part of the Russian Empire. During this period, the Ukrainian language and culture were suppressed, and many Ukrainians were forced to assimilate into Russian culture (Encyclopaedia Britannica 2023);

³ The hybrid aspect implies the use of conventional military actions, along with other non-military ones; it involves “the synchronized use of multiple instruments of power tailored to specific vulnerabilities across the full spectrum of societal functions to achieve synergistic effects” – (Cullen and Reichborn-Kjennerud 2017).



- In the aftermath of the Russian Revolution of 1917, Ukraine briefly declared independence, but it was soon occupied by Soviet forces, and in 1922, it became one of the constituent republics of the Soviet Union, alongside Russia; during the Soviet era, Ukraine and Russia were subject to centralized control by the Communist Party, and their economies and societies were tightly integrated. However, tensions between the two republics simmered beneath the surface, and in the wake of the collapse of the Soviet Union in 1991, Ukraine declared independence (Encyclopaedia Britannica 2023).

Cultural and Linguistic Aspects

- Russia and Ukraine have common roots regarding the Orthodox *religion*, since 988, when “Prince Volodymyr I of Kyiv accepted Christianity and established a devout kingdom that became the predecessor to the modern states of Ukraine and Russia” (Houston and Mandaville 2022);

- Both Russian and Ukrainian *languages* have East Slavic roots, and also nowadays Russian is “the most important minority language” in Ukraine (Encyclopædia Britannica, Inc. n.d.).

Thus, relations between Russia and Ukraine have been characterized by both *cooperation and conflict*, with ongoing disputes over issues such as territory, political influence, and energy supplies. Despite these tensions, the histories of Russia and Ukraine remain closely intertwined, with shared cultural and linguistic traditions, as well as economic and political ties. Kremlin has strategically exploited these facts in such a manner that supports Putin’s plan of Russian *lost pride recovery*.

In order to understand how the preparation and execution of the Russian information campaigns were set, one must know that there were two important means that contributed to making it possible: “Russian national policy documents⁴ and the mechanisms with which the Russian state controls the media and the narrative⁵” (NATO StratCom Centre of Excellence 2015, 9). Also, it is important to understand the Russian policy regarding their so-called “humanitarian direction” approach on *compatriots*⁶.

⁴ Some of Russia’s strategic narrative aspects used in their information campaign against Ukraine are included within the *Russian Foreign Policy Review of 2007*, the *Russian State Security Strategy of 2009*, and also in the *Foreign Policy Concept of 2013* (NATO StratCom Centre of Excellence 2015, 9).

⁵ The Russian power elite’s dominance over the media has effectively established systematic authority over narratives. This authority over narratives entails mastery over the way information is understood. When an authoritarian government practices narrative control over an extended period, a significant segment of its population, lacking critical thinking, tends to perceive information in an exaggerated manner and adheres to a particular interpretation, even when it does not align with actual events (NATO StratCom Centre of Excellence 2015, 39).

⁶ In the 2007 Russian Foreign Policy Review, there is a chapter titled “The Humanitarian Dimension of Foreign Policy”, which delves into the concept of *Compatriots Abroad* and elucidates the imperative of safeguarding their interests. Furthermore, the section addressing Human Rights Challenges



1.2. Themes, Messages and Narratives

The Russian Narrative

A narrative is “a spoken or written account of events and information arranged in a logical sequence to influence the behaviour of a target audience” (NATO Standardization Office n.d.).

NATO StratCom Centre of Excellence (NATO Strategic Communications Centre of Excellence n.d.) has developed a report that analyses Russia’s information campaign against Ukraine, leading up to the annexation of Crimea in 2014, which concludes that “Russia’s narrative is largely based on historical memory and on a thorough understanding of its own audiences, that enables the leverage of historical memory: the Great Russian Empire, World War II and Nazi atrocities, and the collapse of the USSR” (NATO StratCom Centre of Excellence 2015, 5). Their analysis also emphasizes the existence of a specific trait for a narrative used in an information operation, namely that it centers around an unresolved issue or incomplete story. In this case, the incomplete story revolved around the belief that “fascism has not been extinguished” and urged the audience to eliminate fascists and those who follow Bandera⁷ (banderovtsi)” (NATO StratCom Centre of Excellence 2015, 16-17).

Main Themes of the Russian Campaign

The Russian narrative stated above was reflected in several themes (NATO StratCom Centre of Excellence 2015), as follows:

- “*Ukrainians and Russians – one nation, united under the Russian World*” – Russian World which unites Eastern Slavs, implies that Russians and Ukrainians are one nation, and recognizes the natural supremacy of Russia, using historic justifications to legitimize Russia’s actions in Ukraine (including the Crimean Referendum);
- “*Clash of Civilisations*” – Russian Slavic Orthodox Civilization is seen in opposition to the “decadent” Europe;
- “*Ukraine is central to Eurasia*” – positioning Ukraine as integral to Eurasianism and the creation of the Eurasian Economic Union, and at the same time portraying it as a divided and unstable country, plagued by corruption and political infighting;

underscores Russia’s obligation to adopt an assertive stance on crucial matters, notably the protection of the human rights of compatriots. These compatriots are defined as the “tens of millions of (our) Russian people” who were artificially displaced from their historical homeland (Russia) following the dissolution of the USSR (NATO StratCom Centre of Excellence 2015).

⁷ Stepan Bandera, a Ukrainian political activist, led the Ukrainian nationalist movement in Western Ukraine during the 1930s and early 1940s, aiming for Ukrainian independence from the USSR. They considered the Nazis as potential allies in their fight against the Soviets. In 1959, it’s believed the KGB was ordered to assassinate Bandera. He is now a symbol for Ukrainian nationalists but viewed as a Nazi collaborator by Moscow, which refers to Ukrainian nationalists as *banderovtsi*. Russia used the Bandera narrative during the Euromaidan to discredit it as nationalist and neo-Nazi, stoking fears of potential rights violations against “non-Ukrainians” (NATO StratCom Centre of Excellence 2015, 16-17).



- “*Ukrainians are not an independent nation*” – promoting the idea that Ukraine is an artificial state, and portraying its people as a pseudo-nation unable to administer their own country and sustain their statehood;
- “*The Great Patriotic War continues, the fascists in Ukraine have not been eliminated yet*” – referring to the Great Patriotic War thus bringing out the hatred of Nazism and relating it to the Euromaidan protesters who are labelled as nationalists, Nazis and fascists posing a threat to the ethnically Russian part of Ukraine’s population;
- “*The West is divided*” – attempting to divide the West by utilizing the differing interests of EU Member States and positioning the USA in opposition to the EU (NATO StratCom Centre of Excellence 2015, 4), (Pomerantsev and Weiss 2014).

1.3. Crimea Referendum and Annexation

Following the Euromaidan, a referendum was held in Ukraine in March 2014, offering Ukrainian people two options to choose from: to join Russia, or to restore the 1992 Constitution that granted Crimea greater autonomy within Ukraine. The results were overwhelmingly in favour of joining Russia, with 96.77% of the votes, and 2.51% in favour of restoring the 1992 Constitution. However, the referendum was widely criticized by the international community as being illegal and illegitimate. Ukraine, the United States, the European Union, and many other countries refused to recognize the results of the referendum and condemned Russia’s actions in annexing Crimea (BBC News 2014).

Thus, we believe that the referendum’s results proved that the Russian information campaign carried out until 2014 has achieved their objectives (at least regarding the targeted audience: Crimean residents), and that it was a part of Putin’s expansion-strategy.

2. Towards a More Cohesive Ukrainian Information Strategy

The conflict that started in 2014 in Eastern Ukraine has involved a complex array of military, political, economic, and information strategies and measures. Following Crimea’s annexation, Ukraine’s Government has pursued a range of Strategic Communication efforts, including several measures to properly inform and also shape domestic and international public opinion, counter Russian propaganda, and promote the legitimacy of the Ukrainian government.

One of the greatest efforts regarding Strategic Communication was the establishment of the Center for Strategic Communications – *StratCom Ukraine*, in 2014, through which the Ukrainian Government outlines and promotes a series of measures, as follows:



- *Developing a centralized information strategy*: in the early days of the conflict, Ukraine lacked a cohesive messaging strategy. However, over time, the Government has developed a more centralized approach, including by establishing a *Ministry of Information Policy*, in December 2014 and a *Strategic Communications Center – StratCom Ukraine* in 2015 (StratCom Ukraine n.d.). These are responsible for coordinating public information campaigns and countering disinformation;

- *Engaging in information warfare*: Ukraine has sought to counter Russian propaganda with its own information operations, including the use of social media, digital advertising, and strategic messaging. For example, the Ukrainian Government has worked to counter Russian narratives about the conflict and promote its own version of events, namely reality in data and facts;

- *Promoting Ukraine’s international image*: Ukraine has also worked to improve its international image through Strategic Communications efforts. For example, the Government has worked to promote Ukraine’s cultural and historical heritage, as well as its democratic values;

- *Cooperating with international media*: Ukraine has also sought to use international media to promote its message and counter Russian propaganda. This has included working with Western media outlets to provide accurate reporting on the conflict, as well as engaging in public diplomacy efforts to promote Ukraine’s perspective (StratCom Ukraine n.d.), (Ukraine Government n.d.).

- In the following, allow us to make a review of some of the most important information projects and campaigns that Ukraine carried out between 2014 and 2022:

- *“Development of a model of state Strategic Communications”* – the main task for this campaign was to implement a systemic approach regarding a coordinated interaction between state’s authorities, in order to create “reliable and effective state communications” (Stratcom Ukraine n.d.). The final result was Ukraine’s president approval of the Doctrine of Information Security, which is based on the specified model, on February 25, 2017 (Stratcom Ukraine n.d.);

- *“The concept of a Strategic Communications Training Center at a military university”* – supporting the main purpose of building Strategic Communications capabilities, this project’s task was “the introduction of a system of professional training in communicative disciplines of the defence forces” (StratCom Ukraine n.d.);

- *“Army. Second birth”* – before 2014, Ukraine’s Armed Forces image was poor in most Ukrainian citizens’ perception, and, therefore, one of the most prominent campaign had to combat Russian propaganda on this topic and show the world their evolution and achievements. The results were very satisfactory for the Ukrainian security culture, as the Ukrainian Ministry of Defence has assessed (Ministry of Defense of Ukraine n.d.);

- *“Countering Gender-Based Violence in Conflict-Affected Regions of Eastern Ukraine”* – this project started as violence upon women and girls in the East of Ukraine



has increased, since Russian hostilities have started. Authorities organized trainings and five round tables in order to combat this fact, and also conducted “a large-scale campaign called “*Break the Circle*” in the Eastern oblasts to raise awareness about preventing violence and what to do in case of violence” (Stratcom Ukraine n.d.);

- “*#MyUkraineIs*” – a project that promotes the image of Ukraine and its potential in adhering to European values and principles, as modern Ukraine (after 2014) promotes dignity, freedom and creativity as their new core-values. In subsidiarity, this project has developed a communication campaign, called “Ukraine. People’s Cut” referring to what modern Ukraine wish to eliminate from their old, Russian-driven perspectives. They have also developed a website (myukraineis.org), other social-media campaign with the hashtag #MyUkraineIs on Facebook, Twitter and Instagram, and broadcasted a short video in this regard (Stratcom Ukraine n.d.);

- “*Let My People Go*” – since Russian aggressions started in Eastern Ukraine, many Ukrainians have been taken hostages. Under the umbrella of this campaign, a brochure has been developed in eight languages, presenting the stories of 11 Ukrainians and, as well, a Facebook campaign has been developed in order to support Ukraine’s mission to promote its message to the world (Stratcom Ukraine n.d.);

- *Exhibition “Warrior. Freedom Through the Ages”* – aiming to revive the prestige of the Ukrainian military services, this exhibition broadcasts the image of a Ukrainian warrior, throughout one thousand years of history (Stratcom Ukraine n.d.);

- *Demobilization 2016* – a project to support the demobilized Ukrainian soldiers returning home from the battlefield, in order to provide helpful information in a simple and clear way, regarding “instructions on how to receive government social assistance, guidance on issues such as housing, medical care, discounts on utility bills, professional adaptation, prosthetics, and psychological help” (StratCom Ukraine n.d.). Also, the project developed a website, demobilization.info that “became the first government resource to provide quality information for service members” (StratCom Ukraine n.d.).

3. Ukraine’s Information Campaigns since the Beginning of the War: Public Requests and International Responses

Statistics reveal that before 2022, Russia boasted more than four times as many active military personnel as Ukraine. Additionally, Russia’s arsenal included 13 times as many aircraft, four times the number of armoured vehicles, and a naval fleet that was 16 times larger than Ukraine’s. In 2021, Russia ranked fifth globally in terms of military expenditure, spending nearly 66 billion U.S. dollars, while Ukraine allocated almost six billion U.S. dollars for its military (Statista 2023). Therefore,



on February 2022, when Russia started the war, a simple logical deduction would have hardly predicted that Ukraine could resist for too long in facing an undeniably stronger enemy.

Even so, being aware of the military disproportions, in the first days of war, Ukraine's President, Volodymyr Zelensky, understood his fundamental duty, which was not that of a military strategist placing battalions on a map. Instead, he assumed the role of a communicator, a living embodiment of the state, whose capacity to capture and retain the global spotlight could play a crucial role in determining the survival or demise of his nation (Shuster 2022). Thus, he put on the military-style coat, and joined his soldiers in their efforts to counter the Russian attackers.

Also, he has made multiple public calls on the citizens of Ukraine to participate in defending their country, and soon the result of these public appeals had a very positive outcome: not only that Ukrainian residents responded to his request, but also Ukrainians abroad, and a large number of volunteers from all over the world have joined the Ukrainian army in this battle. However, the volunteers' help was not enough for Kyiv to stand the war, and, therefore, Ukraine's authorities, mainly through the voice of their president, have made repetitive other calls to the international community, using various means of communication: television, social networks, the press, official international visits, videoconferences, invoking Russia's illegitimate actions such as war crimes that violate the rules of international law.

To show their disagreement with these war crimes, the majority of Western countries, such as European Union (EU) members, Switzerland, the United Kingdom (UK), and the U.S. imposed sanctions on Russia. The restrictions targeted the financial sector, individuals affiliated with the Government, and exports of high-tech products to Russia, among others. The EU also banned Russian airlines from its airspace, while Germany halted the certification of the gas pipeline Nord Stream 2. Albania, Australia, Canada, Japan, Kosovo, North Macedonia, Singapore, South Korea, and Taiwan also announced sanctions (Statista 2023). Major international companies, such as Apple, H&M, Ikea, Inditex, and McDonald's suspended operations in Russia (Statista 2023).

On the other hand, China and India took a neutral stance in the conflict, while some countries showed their support for Russia: Belarus, Cuba, Iran, Myanmar, Syria, and Venezuela officially supported Russia (Statista 2023). In addition, several actors have also supported Ukraine with bilateral aid. The United States donated the largest share of GDP, Central and Eastern European (CEE) countries donated the most significant percentage of their gross domestic product (GDP) to help Ukraine, until January 15, 2023.

Not only state-actors were concerned with the Ukrainian support, but also citizens from all over the world that offered humanitarian aid and volunteered



themselves to help Ukraine by different means. One major support from foreign citizens was in terms of helping the Ukrainian residents that have fled the war zone. People in other countries have received Ukrainians in their homes, offered them food, clothes and other necessary supplies, they have created numerous non-profit groups, offered psychological and medical aid, and welcomed the refugees with generosity and empathy. Statista developed a report on public opinion regarding different issues on the Russian-Ukrainian war, on a group of 19,000 respondents, from 27 countries. Among the conclusions drawn resulted that nearly three quarters of the respondents in 27 countries worldwide believed that their nations should take in refugees from Ukraine (Statista 2023). These being said, we believe that Ukraine's President public discourses were an important factor in modelling the worlds' citizens' perception regarding the war and, subsidiary, their behaviour in order to receive their support.

Following the analysis of a causal relation ("X caused Y"), our research is based on a qualitative approach, with an emphasis on the *causal mechanisms* that made the effect possible. In other words, we started from the presumption that *Ukraine's Stratcom course of action* (X) caused/led to *Ukraine's resistance during over one year of war* (Y) in the war with Russia, an undeniably stronger enemy. Even though this may be a debatable statement, as others can argue that there are a series of other reasons to consider for Ukraine's resistance, our focus stays on answering the research question introduced in the beginning of the article: "*How did the Ukrainian StratCom campaign function in supporting the Ukrainian state to resist this first year of war, against most expectations?*".

In order to answer, we considered necessary to understand what prompted those who offered their support to do so, taking into consideration (1) Ukraine's public requests during this past year, (2) how they reasoned these claims, (3) what they have received following these requests and (4) from what countries (see Table no. 1).

Russia's military power is uncontestably higher than Ukraine's, comparing their military personnel, military capabilities, and military investments (Statista 2023). In terms of these three main factors of military power, one can observe how these were also Zelensky's main public claims to the world, as well as his requests on sanctioning Russia, in order to diminish its economic power that would have fed the war. In formulating his claims, the Ukrainian President invoked democracy and its values, the violation of international law and the civilian victims and war damages, explaining this way the *illegitimacy* of the Russian military actions, and presenting the Russian threat as a menace to the world, to the state of peace and order, and to democracy as well.



Table no. 1: How did the Ukrainian StratCom campaigns function?

1. Ukraine's public requests	2. Reasoning requests through Zelensky's public statements	3. Support received	4. State and non-state actors supporting Ukraine ⁸
<p>A call to national and international volunteers to join the fight against the Russian invasion</p>	<ul style="list-style-type: none"> • "Anyone who wants to join the defence of Ukraine, Europe and the world can come and fight side by side with the Ukrainians against the Russian war criminals" (McKernan 2022) • "friends of <i>peace and democracy</i>" (McKernan 2022) • "This is the beginning of a war against Europe, against European structures, against <i>democracy</i>, against <i>basic human rights</i>, against a <i>global order of law, rules and peaceful coexistence</i>" (McKernan 2022) • According to a 2016 decree, "foreigners had the <i>right</i> to join the Ukrainian army for military service on a voluntary basis" (McKernan 2022). • key message on the platform for enrolment as a volunteer to join the international legion of defence of Ukraine – "<i>Freedom is a choice. Join the brave!</i>" (Ministry of Foreign Affairs of Ukraine n.d.). • "We have nothing to lose but our own freedom" (Bella and Timsit 2022) 	<ul style="list-style-type: none"> • National and international volunteers: more than 20.000 fighters from 52 countries, as per November 2022 (Guarino 2022) • In 2022 Spain created a Training Coordination Centre in Toledo, a programme meant to train up to 400 Ukrainian conscripts once in two months, as part of the European Military Assistance Mission in support of Ukraine. 24 EU countries have offered training modules and personnel; by the end of 2023, the mission will have trained 30,000 Ukrainian soldiers (Reuters 2023) 	<ul style="list-style-type: none"> • Ukrainian diaspora and foreign citizens • fighter volunteers from 52 worldwide countries – US and 24 Western States, (Abend 2022), (Statista 2023)
<p>Ukraine asks the world leaders to impose sanctions on Russia</p>	<ul style="list-style-type: none"> • "Zelensky urged U.S. companies still doing business in Russia to leave." "American companies must leave Russia's market because it is flooded with our blood" (Public Broadcasting Service 2022) • «In a speech to the Italian Parliament [...] Zelensky urged the country's MPs to freeze all assets belonging to the Russian elite and to declare a full trade embargo, starting with oil. He said: "You know very well who orders troops to go to war and who propagates this. Almost all of them use Italy as a place to rest. Do not be a resort for murderers"» (Solomons and Wynn-Davies 2022) 	<p>Sanctions on Russia⁹</p> <ul style="list-style-type: none"> • Since February 2022, and as of February 2023, the United States has imposed over two thousand list-based sanctions on Russia. Switzerland placed the second largest number of list-based sanctions on Russia after that date, followed by New Zealand, United Kingdom, Belgium, Australia, Japan and Poland (Statista 2023). • Organizations worldwide imposed 10,608 restrictions on individuals from Russia. Furthermore, 3,431 list-based sanctions were placed on entities over that period (Statista 2023). 	<p>United States, Switzerland, New Zealand, United Kingdom, Belgium, EU, Australia, Japan, Poland (Statista 2023)</p>

⁸ A full list of sanctions can be found at URL: [//www.statista.com/topics/9087/russia-ukraine-war-2022/#topicOverview](https://www.statista.com/topics/9087/russia-ukraine-war-2022/#topicOverview)

⁹ In hierarchical order.



1. Ukraine's public requests	2. Reasoning requests through Zelensky's public statements	3. Support received	4. State and non-state actors supporting Ukraine ¹⁰
Financial aid and military capabilities	<ul style="list-style-type: none"> • “Zelensky asks Europe for more aid, calls Russia the ‘biggest anti-European force’ in modern world” (Amaro 2023) • “The sooner we get heavy long-range weapons and our pilots get modern planes, Emmanuel, the earlier our pilots can get modern planes, Olaf, the more powerful will be our tank coalition” (Amaro 2023) • “Your money is not charity. It’s an investment in the global security and democracy that we handle in the most responsible way.” (Le Monde with AP 2022) • “Iranian deadly drones sent to Russia in hundreds became a threat to our critical infrastructure. That is how one terrorist has found the other. It is just a matter of time when they will strike against your other allies if we do not stop them now.” (European Pravda 2022) • “The world is too interconnected and too interdependent to allow someone to stay aside and at the same time to feel safe when such a battle continues. Our two nations are allies in this battle and next year will be a turning point, I know it – the point where Ukrainian courage and American resolve must guarantee the future of our common freedom, the freedom of people who stand for their values.” (Liptak and Vazquez 2022) 	<p>Foreign aid</p> <ul style="list-style-type: none"> • <i>Bilateral Aid donations</i> Central and Eastern European (CEE) countries donated the most significant percentage of their gross domestic product (GDP) to help Ukraine until January 2023. (Statista 2023) Estonia contributed nearly 1.1 percent of GDP in bilateral aid, followed by Latvia with almost one percent of GDP. Among countries outside CEE, the United States donated the largest share of GDP. (Le Monde with AP 2022) 	<p>Estonia, Latvia, Lithuania, Poland, United States, Bulgaria, Norway, United Kingdom, Canada, Czech Republic, Slovakia, Denmark, Portugal, Germany, Netherlands, Sweden, Austria, Finland, Slovenia, Luxemburg, Greece, France, Italy, Croatia, Belgium, Spain, Switzerland, Hungary, Australia, Ireland, Japan, Cyprus, Taiwan, Malta, Turkey, New Zealand, South Korea. (Statista 2023)</p>
	<ul style="list-style-type: none"> • <i>Military capabilities</i> “The United States committed to provide nearly 23 billion Euros worth of military aid to Ukraine until November 2022, followed by Germany, the United Kingdom, and several other Western countries.” (Statista 2023) • US representatives: “Helping equip our friends in Eastern Europe to win capabilities to menace Americhis war is also a direct investment in reducing Putin’s future a, threaten our allies and contest our core interests” (Thomas and Andrew 2022) 	<p>United States, Germany, United Kingdom, Poland, Canada, Netherlands, Sweden, Italy, Latvia, Turkey, Estonia, France, Australia, Norway, Denmark, Czechia, Finland, Lithuania, Croatia, Belgium, Slovakia (Statista 2023)</p>	

We argue that the world’s response in sending their aid or even volunteering to join arms with the Ukrainians is strongly related to the fact that *Ukraine raised empathy*¹⁰ among international state and non-state actors and citizens, as those who have offered their support share the same core-values as modern Ukraine promotes.

Moreover, we believe that the whole democratic world responded in a positive manner to the Ukrainian StratCom campaigns, and that promoting cooperation upon

¹⁰ In order to enable empathy, it is implied that both the transmitter and the receiver must share some common values, as this notion refers to “the ability to understand and share the feelings, thoughts, and experiences of others” (Eisenberg and Miller 1987).



shared values is a key-aspect of Strategic Communications. From our point of view, the effect was not only an unexpected year of resistance, but also a demonstration of cohesion from many democratic states that cooperate and act in accordance with the democratic values for which they stand.

Conclusions

We conclude that Ukrainian resistance has been decisively enhanced through its StratCom, that raised empathy and finally won the hearts and minds of many international decision makers and citizens around the world, taking into account all the international support Ukraine received in response to their public requests during the first year of war.

The ongoing war does not only affect Russia and Ukraine, bringing upon security implications at least at regional level and also bearing other kind of implications – such as economic – at global level as well. Thus, world actors should understand that promoting, acting and responding in accordance with democratic values such as freedom or justice – through ethical and moral means – can bring together all those who believe in them, in what may be seen as a powerful coalition of democracies. Moreover, promoting and raising security culture, as well as critical thinking, through different Strategic Communication campaigns, may not only support a state to combat hybrid threats from the information area, but can also be a measure to prevent them.

Furthermore, one may see how hostile information campaigns erode over time, as many of the themes and narratives promoted by Kremlin were disproven and, as a consequence, Russia has lost much of their public discourses reliability, as well as much of its influence.

BIBLIOGRAPHY:

- Abend, Lisa. 2022. “Meet the Foreign Volunteers Risking Their Lives to Defend Ukraine - and Europe.” *Time*. March 7. Accessed on March 21st, 2023. <https://time.com/6155670/foreign-fighters-ukraine-europe/>
- Adams, Paul. 2022. “‘Shame on you’: How President Zelensky uses speeches to get what he needs.” *BBC News*. March 24. Accessed on March 21st, 2023. <https://www.bbc.com/news/world-europe-60855280>
- Amaro, Silvia. 2023. “Zelenskyy asks Europe for more aid, calls Russia the ‘biggest anti-European force’ in modern world.” *CNBC*. 9 February. Accessed on March 21st, 2023. <https://www.cnbc.com/2023/02/09/zelenskyy-expected-to-ask-for-more-aid-from-eu-leaders-in-brussels.html>



- BBC News. 2014. "Crimea referendum: Voters 'back Russia union'." *BBC News*. 17 03. Accessed on February 27th, 2023. <https://www.bbc.com/news/world-europe-26606097>
- Bella, Timothy, and Annabelle Timsit. 2022. "Zelensky says 16,000 foreigners have volunteered to fight for Ukraine against Russian invasion." *The Washington Post*. March 3. Accessed on April 02nd, 2023. <https://www.washingtonpost.com/world/2022/03/03/zelensky-ukraine-16000-foreign-volunteers-russia/>
- Bilal, Arsalan. 2021. "Hybrid Warfare – New Threats, Complexity, and 'Trust' as the Antidote." *NATO Review*. 30 November. Accessed on February 17th, 2023. <https://www.nato.int/docu/review/articles/2021/11/30/hybrid-warfare-new-threats-complexity-and-trust-as-the-antidote/index.html>
- Cullen, Patrick J., and Erik Reichborn-Kjennerud. 2017. *Understanding Hybrid Warfare*. A Multinational Capability Development Campaign project, Multinational Capability Development Campaign (MCDC). https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/717539/MCDC_CHW_Information_Note-Understanding_Hybrid_Warfare-Jan_2018.pdf
- Eisenberg, Nancy, and Paul A. Miller. 1987. "The Relation of Empathy to Prosocial and Related Behaviors." *Psychological Bulletin* 91-119.
- Encyclopaedia Britannica. 2023. "Kievan Rus." *Encyclopaedia Britannica*. February 18. Accessed on March 24th, 2023. <https://www.britannica.com/place/Ukraine>
- Encyclopædia Britannica, Inc. n.d. "People of Ukraine." *Encyclopædia Britannica*. Accessed on March 24th, 2023. <https://www.britannica.com/place/Ukraine/People>
- Guarino, Mark. 2022. "Foreign fighters in Ukraine speak out on their willingness to serve: 'I had to go'." *ABC News*. November 06. Accessed on March 22nd, 2023. <https://abcnews.go.com/International/foreign-fighters-ukraine-speak-willingness-serve/story?id=91671528>
- Houston, Aidan, and Peter Mandaville. 2022. "The Role of Religion in Russia's War on Ukraine." *UNITED STATES INSTITUTE OF PEACE*. 17 March. Accessed on March 24th, 2023. <https://www.usip.org/publications/2022/03/role-religion-russias-war-ukraine>
2022. "Iran Threatens Zelenskyy Over His Speech to Congress." *Euro Integration*. December 22. Accessed on May 11th, 2023. <https://www.eurointegration.com.ua/eng/news/2022/12/22/7152958/>
- Koziej, Stanislaw. 2023. *Ukraine's strategic communication in the war with Russia*. January 18. Accessed on March 22nd, 2023. <https://www.gisreportsonline.com/r/ukraine-strategic-communication/>
- Le Monde with AP. 2022. "Ukraine President Zelensky to US Congress: 'Your money is not charity, it's an investment in global security'." *Le Monde*.



- December 22. Accessed on April 12th, 2023. https://www.lemonde.fr/en/international/article/2022/12/22/ukraine-president-volodymyr-zelensky-addresses-us-congress_6008649_4.html
- Liptak, Kevin, and Maegan Vazquez. 2022. “Zelensky delivers impassioned plea for more help fighting Russia on the ‘frontline of tyranny’.” *CNN*. December 21. Accessed on March 21st, 2023. <https://edition.cnn.com/2022/12/21/politics/zelensky-biden-washington-visit-ukraine-russia-war/index.html>
- Martin, Tim. 2022. *Russia goes to war but Ukrainian resistance wins hearts and minds: 2022 in Review*. December 23. Accessed on March 21st, 2023. <https://breakingdefense.com/2022/12/russia-goes-to-war-but-ukrainian-resistance-wins-hearts-and-minds-2022-in-review/>
- McKernan, Bethan. 2022. “Ukraine appeals for foreign volunteers to join fight against Russia.” <https://www.theguardian.com/>. February 27. Accessed on March 21st, 2023. <https://www.theguardian.com/world/2022/feb/27/ukraine-appeals-for-foreign-volunteers-to-join-fight-against-russia#:~:text=Interested%20volunteers%20have%20been%20told,voluntary%20basis%2C%20Zelenskiy's%20statement%20said>
- Ministry of Defense of Ukraine. n.d. *New Army in Ukraine*. Accessed on February 21st, 2022. <http://newarmy.in.ua/en>
- Ministry of Foreign Affairs of Ukraine. n.d. *Russia invaded Ukraine. Enlist to the International Legion of Defence of Ukraine*. Accessed March 23, 2023. <https://fightforua.org/>
- NATO. 2015. *NATO Strategic Communications Handbook (Draft for Use)*. NORFOLK, VIRGINIA, 19 May.
- NATO Standardization Office - NSO. n.d. “Information environment (IE).” *NATO Term - The Official NATO Terminology Database*. Accessed February 09, 2023. <https://nso.nato.int/natoterm/Web.mvc>
- NATO Standardization Office (NSO) . 2020. *Allied Joint Doctrine for Strategic Communications Study Draft 1*. Riga, 03 April.
- NATO Standardization Office. n.d. *Narrative*. <https://nso.nato.int/natoterm/Web.mvc>
- NATO StratCom Centre of Excellence. 2015. *Analysis of Russia's Information Campaign against Ukraine. Examining non-military aspects of the crisis in Ukraine from a strategic communications perspectives*. Riga: NATO StratCom Centre of Excellence. https://stratcomcoe.org/cuploads/pfiles/russian_information_campaign_public_12012016fin.pdf
- NATO Strategic Communications Centre of Excellence. n.d. *NATO Strategic Communications Centre of Excellence*. Accessed on February 27th, 2023. https://stratcomcoe.org/about_us/about-strategic-communications/1
- Pomerantsev, Peter, and Michael Weiss. 2014. *The Menace of Unreality: How the Kremlin Weaponizes Information, Culture and Money*. A Special Report, New



- York: Institute of Modern Russia. https://imrussia.org/media/pdf/Research/Michael_Weiss_and_Peter_Pomerantsev_The_Menace_of_Unreality.pdf
- Public Broadcasting Service . 2022. “What did Ukraine President Zelensky ask for during his call with Congress?” *PBS News Hour*. 16 March. Accessed on March 21st, 2023. <https://www.pbs.org/newshour/politics/what-did-ukraine-president-zelensky-ask-for-during-his-call-with-u-s-congress>
- RAND Corporation. n.d. “Psychological Warfare.” *Rand.org*. Accessed on February 09th, 2023. <https://www.rand.org/topics/psychological-warfare.html>
- Reuters. 2023. “Spain trains Ukrainian volunteers ahead of expected Russian offensive.” *Reuters.com*. 09 February. Accessed on March 22nd, 2023. <https://www.reuters.com/world/europe/spain-trains-ukrainian-volunteers-ahead-expected-russian-offensive-2023-02-09/>
- Shuster, Simon. 2022. “Inside Zelensky’s World.” *Time*. April 28. Accessed on May 14th, 2023. <https://time.com/6171277/volodymyr-zelensky-interview-ukraine-war/>
- Solomons, Adam, and Stephen Wynn-Davies. 2022. *Daily Mail* . 22 March. Accessed on March 21st, 2023. <https://www.dailymail.co.uk/news/article-10639491/Zelensky-told-Italian-MPs-Ukraine-brink-surviving-Russia-war-Rome-backed-EU-bid.html>
- Statista. 2023. *Russia-Ukraine war 2022-2023 - statistics & facts*. Accessed on March 23rd, 2023. <https://www.statista.com/topics/9087/russia-ukraine-war-2022/#topicOverview>
- Statista. 2023. *Russia-Ukraine war 2022-2023 - statistics & facts*. statistics & facts, Statista Research Department. <https://www.statista.com/topics/9087/russia-ukraine-war-2022/#topicOverview>
- Stratcom Ukraine. n.d. *#MyUkraineIs*. Accessed on March 21st, 2023. <https://stratcomua.org/en/communication/10#open>
- . n.d. *Army. Second birth*. Accessed on March 25th, 2023. <https://stratcomua.org/ua/communication/13#open>
- . n.d. *Countering Gender-Based Violence in Conflict-Affected Regions of Eastern Ukraine*. Accessed on March 22nd, 2023. <https://stratcomua.org/en/communication/16#open>
- StratCom Ukraine. n.d. *Demobilization 2016*. Accessed March 21, 2023. <https://stratcomua.org/en/communication/1#open>
- Stratcom Ukraine. n.d. *Development of a model of state strategic communications*. Accessed on March 22nd, 2023. <https://stratcomua.org/ua/consulting/2#open>
- . n.d. *Exhibition “Warrior. Freedom Through the Ages”*. Accessed on March 24th, 2023. <https://stratcomua.org/en/communication/7#open>
- . n.d. *Let My People Go*. Accessed on March 12th, 2023. <https://stratcomua.org/en/communication/11#open>



- StratCom Ukraine. n.d. *Strategic Communications Center StratCom Ukraine*. Accessed on March 23rd, 2023. <https://stratcomua.org/ua/about>
- . n.d. *The concept of a strategic communications training center at a military university*. Accessed on March 21st, 2023. <https://stratcomua.org/ua/consulting/3#open>
- Thomas, Ken, and Restuccia Andrew. 2022. “Zelensky Says Ukraine Will Never Surrender, Asks Biden and Congress for More Aid.” *The Wall Street Journal*. 22 December. Accessed on March 21st, 2023. <https://www.wsj.com/articles/zelensky-heads-to-washington-to-shore-up-more-u-s-support-for-ukraine-11671644438>
- Timothy, Thomas. 2004. “Russia’s Reflexive Control Theory and the Military.” *The Journal of Slavic Military Studies* 17 (2). doi:10.1080/13518040490450529.
- Ukraine Government. n.d. *Ministry of Culture and Information Policy of Ukraine*. Accessed on March 23rd, 2023. <https://mkip.gov.ua/en/>



EU'S SOUTHERN NEIGHBOURHOOD POLICY TOWARDS LIBYA AND SYRIA

*Vasile-Dumitru RAȚIU**

The EU is actively involved in the dynamics of the states in its immediate vicinity to make them more stable. This involvement requires a high financial effort. In this paper I will analyse how the European Union (EU) implemented and intends to continue the neighbourhood policy with two states that went through the “Arab Spring” and became conflict zones. For the states in question, namely Libya and Syria, EU provides humanitarian aid and wishes them to recover from their failed state.

The main objectives pursued by the EU within the European Neighbourhood Policy (ENP) are stabilization of neighbouring countries, promotion of EU key interests and facilitation of regional cooperation.

In addition to the neighbourhood policy instrument, between the EU and the two states there is a significant increase in trade relations from year to year. This increase in economic exchanges also leads to a deepening of bilateral relations. This rapprochement can transpose models of good governance from the EU to these failed states, and over time can create an environment conducive to state reconstruction, where the citizen is at the centre of attention and the rulers' own interests are no longer at the forefront.

The purpose of the paper is to analyse the EU southern neighbourhood policy, with an emphasis on Libya and Syria. The starting hypothesis of the research is that the EU's ENP aid to Libya and Syria ensures minimal stability for the two countries and a better neighbourhood for it. As a working methodology, I will use the qualitative analysis of documentary materials.

Keywords: *EU; Southern Neighbourhood; failed states; Libya; Syria; economic cooperation.*

** Vasile-Dumitru RAȚIU is a PhD Student in the field of Political Sciences within the National University of Political Studies and Public Administration (SNSPA), Bucharest, Romania. E-mail: uitar@yahoo.com*



Introduction

The world is constantly changing as “in the emerging multipolar order, the international peace architecture (IPA), dominated by the liberal international order (LIO), is challenged through counter-peace processes. These processes challenge the nature of the state, state-society relations and the international order itself” (Richmond, Pogodda, and Visoka 2023, 1), and every international actor tries their best to adapt to these new events.

In order to cope with the changes in its southern and eastern neighbourhood, the EU proposed a European Neighbourhood Policy (ENP) that evolved with each major issue that arose. In this regard, in the south, the EU faced the instability triggered by the “Arab Spring”, the civil wars in Libya and Syria, the migrant crisis in this region and an active involvement of Russia in the states’ policies of the region. Each of these issues led to a response from the EU. The appearance of the Israel-Hamas conflict in the Gaza Strip is an additional reason for the EU to be actively involved in strengthening the southern area of its borders.

The EU wants for its partners in the southern neighbourhood an increase in stability and a normalization of public policies so that each state provides well-being for its own citizens. In this respect, in a chronological perspective, the following documents regarding the ENP have appeared since 2002: “Solana and Patten Joint Letter to the Council on ‘Wider Europe’ and Prodi speech on ‘Wider Europe (2002), Wider Europe – Neighbourhood: A new framework for relations with our eastern and southern neighbours, COM (2003)0104 (2003) and European Neighbourhood Policy – Strategy Paper, COM(2004)373 (2004) (Sieglinde Gstöhl 2016, 7).

Furthermore, in order to protect its interests, the EU drew up a European Neighbourhood Policy in 2004. The EU wanted through this policy to achieve peace and development for its neighbours, and through them a protection zone for itself. The two civil wars in Libya and Syria have questioned the effectiveness of this policy. These states became the main areas from which and through which migrants came to Europe to achieve a better life for themselves, away from war and poverty. Since 2015, the EU has faced a migrant crisis caused by a massive influx of people, which although it has decreased in intensity, still persists today.

In addition to the two states mentioned before, there are also problems with the other states in the southern neighbourhood. In countries such as Morocco, Algeria, Egypt and Lebanon, the repression of the authorities towards their own citizens is very high. In these countries, human rights, gender equality and equal opportunities are not respected.

The European Neighbourhood Policy applies to states in its very immediate vicinity, with which the EU has land or sea borders. “The European Neighbourhood Policy (ENP) governs the EU’s relations with 16 of its closest eastern and southern



partners. As a key element of the EU's foreign policy, the ENP focuses on stabilizing the region in political, economic and security terms" (European Commission 2018).

The regional and multilateral cooperation initiatives of the ENP are: "Eastern Partnership, Renewed Partnership with the Southern Neighbourhood. The New Agenda for the Mediterranean, Union for the Mediterranean, Black Sea Synergy, Northern Dimension, EU Arctic Policy, Cross-Border Cooperation (CBC)" (European Union External Action 2021).

There are no ENP Action Plans for Libya and Syria, while with the other partner countries EU has adopted bilateral action plans, partnership priorities or association agendas. These are the main instruments for the application of the ENP, through which the EU and each individual partner seek states' development.

The European Neighbourhood Policy aims at the following objectives:

"- stabilization of neighbouring countries through economic development, employment and youth, transport and energy connectivity, migration, mobility and security;

- promoting the EU's key interests of good governance, democracy, the rule of law and human rights;

- facilitation of cooperation at the regional level: the Eastern Partnership, the Union for the Mediterranean" (European Commission 2018, Objectives).

Between 2014-2020, for the European Neighbourhood Policy, the allocated resources were 15.4 billion euros through the European Neighbourhood Instrument (ENI).

For the period between 2021-2027, the amount granted to the European Neighbourhood Policy is 19.3 billion euros. This is financed through the Neighbourhood, Development and International Cooperation Instrument (NDICI) – "Global Europe" -. This instrument "preserves the key features of the ENI in relation to enhanced political cooperation with ENP partner countries" (European Union External Action 2021, Financial Assistance).

This article aims to highlight how an international actor such as the EU manages through peaceful methods to maintain relations with neighbouring states where there are conflicts and to promote sustainable development for its southern neighbours. The purpose of the paper is to analyse the southern neighbourhood policy, with an emphasis on Libya and Syria.

In the analysis carried out, literature was consulted, including books, articles and research reports on the chosen topic. Other sources of information were the official websites of the European Commission, European Union External Action and EU Neighbours South.

In the analysis of the southern neighbourhood Libya and Syria were selected as representative countries because their failed states' situation represents the greatest danger for the EU, as they are neighbouring states of the EU where after the "Arab



Spring” there have been constant armed conflicts that decayed their national security but also regional security as a whole.

According to Samer Bakkour and Rama Sahtout consider Syria to be a failed state because it “cannot meet the economic, political and social needs and demands of its citizens” (Bakkour and Sahtout 2023, 1020). Because of the prolonged civil war, Libya is also considered a failed state. The authors also narrate that there is a close connection between war and the failed state: “War is often a cause of state failure and is almost always a factor in collapse. When the state cannot repel external attacks, preserve regional unity, or eliminate any threat to local structure, it fails. Failed states then face many insurgencies, which are directed at the state and groups within it” (Bakkour and Sahtout 2023, 1022). This idea of the relation between conflict and failure of a state and the potential of their diffusion regionally is strongly supported by the wide literature in the matter (Rotberg 2016) (Ottaway and Mair 2004) (John 2008).

1. The EU and the Southern Neighbourhood

Christopher S. Browning and Pertti Joenniemi present three key elements regarding the Southern Neighbourhood. The first element relates to the concern of EU states in the south, who believe that the EU’s attention is moving more to the east after the expansion of the Union in that part. Moreover, they believe that the EU through the ENP pays more attention to bilateralism in the relationship with the states in the southern neighbourhood, compared to the previous Euro-Mediterranean Partnership (EMP) which was based on regional cooperation. The second element presents the EU’s position towards security issues in the region with the increase in migration, human trafficking and terrorism. The third element presented by the authors is related to the issue of identity.

Holm in 2005 argued that “there are two discourses” (Browning and Joenniemi 2008, 538–40) when it comes to the EU focus of its neighbourhood policy: “On the one hand, she notes there is the discourse of the Mediterranean as the cradle of civilization, as a meeting place where cultures are able to fertilize each other. This discourse, she notes, leaves open possibilities of a future profitable co-existence and even of future closer integration. The other discourse, in contrast, is of the southern neighbours as riven by conflict and as cultural others. This discourse easily draws on the role of Islam versus a Christian Europe and in its rightist manifestations can entail racist elements in terms of the fear of the Arab other” (Browning and Joenniemi 2008, 540).

The reality is that EU collaborated between 2004 and 2010 for good neighbourliness with totalitarian regimes in the Middle East and North Africa (MENA). The fall of dictators after the Arab Spring made institutional collaboration



between the EU and these states difficult. Also, “the problem of resources allocated to European policies in the region is another factor that explains the limits of the EU’s influence on regional dynamics. Beyond the exact size of the allocated funds, the limited nature of the European reaction is given by the implicit geopolitical reality of the EU – states and societies in the region are not considered to have the potential vocation to become “European”. If EU enlargement remains unlikely in Europe, in the Middle East and Southern Neighbourhood Region it seems impossible” (Cucută 2015, 212).

In the approach to the “Arab Spring” sources, the EU and some of the researchers close to the EU institutions considered that these revolutions are only pro-democracy. This comes from the fact that “the common understandings of the EU are largely oriented towards the community model of civil society, which reflects idealistic notions of basic autonomy, self-empowerment and claims for natural rights” (Bürkner and Scott 2019, 27). The EU mistakenly believed that civil society organizations (CSOs) and NGOs in the southern neighbourhood really have a large influence in their own society, “consequently, there has been a more general misrecognition of the role of civil society in the Arab uprisings, marginalizing the argument that the uprisings were popular reactions to the mass impoverishment resulting from neoliberal reforms in MENA countries, rather than a struggle for more democracy” (Bürkner and Scott 2019, 28).

In the southern neighbourhood there are 10 states with which the EU cooperates: Morocco, Algeria, Tunisia, Libya, Egypt, Israel, Jordan, the Palestinian National Authority, Syria and Lebanon. This cooperation is done both bilaterally, where almost all states have an ENP action plan, and multilaterally, in the form of a regional cooperation called the Union for the Mediterranean (UfM).

Within the framework of EU-Libya cooperation in the ENP (also without a signed Association Agreement), for the period 2014-2020, 98 million euros were granted through the European Neighbourhood Instrument (ENI/ENI), the assistance being focused on the following sectors: Governance; Economic development; Health and Support for civil society and young people” (European Commission n.d, Libya).

For the period 2021-2027 at the bilateral level, the EU started funding through the Neighbourhood, Development and International Cooperation Instrument – Global Europe (NDICI- Global Europe). In this framework, “the EU adopted in 2021 two programs aimed at supporting democratic governance, the rule of law, private sector development and sound economic policies (20 million euros in total), and, in 2022, two new programs aimed at supporting health and the climate change environment (EUR 32 million in total)” (European Commission n.d. Libya). Thus, the assistance given to the Tripoli government in the first two years through the new financial package was already 52 million euros, which represented an increase in budget allocations through that instrument. It is a considerable amount granted by



the EU to support the reforms. If these allocations are maintained in the next four years, the EU will grant aid of approximately 150 million euros to Libya.

In Syria, the EU wants to support population resilience and post-conflict transition and recovery (European Commission n.d., Syria). “Assistance is provided in sectors such as education, livelihoods, civil society capacity building, health, accountability and transitional justice. EU support through ENI is provided as far as possible throughout Syria and is delivered through United Nations agencies, international and Syrian NGOs, as well as EU Member State agencies, in complementarity with humanitarian aid. 349.4 million euros has been mobilized through ENI for the interior of Syria since the start of the conflict in 2011. On February 9, 2021, the European Commission adopted a joint communication on the renewed partnership with the Southern Neighbourhood, which will help guide EU policy and programming for the coming years” (European Commission n.d., Syria).

In the case of Syria, between 2021-2027, the EU started funding through the NDICI-Global Europe, therefore, since 2021 it has granted 87 million euros (European Commission 2023).

Across Africa the EU wants to support a strong transformation of the entire economy on this continent. The EU proposes a transformation of the African economy through investments of 150 billion euros. The EU aims to accelerate the green transition, digital transition, and sustainable growth and creating decent jobs, to consolidate the health systems and to improve education and training (EU Neighbours South 2023).

In the North African region through the EU-Africa programme: Global Gateway Investment Package, the EU proposes a growth of the inclusive economy. In this perspective, “through the Economic and Investment Plan for the Southern Neighbourhood, the EU will seek to promote sustainable trade and investment in the largest sectors that bring added value and support vocational training to take advantage of the new opportunities offered by the twin green and digital transitions. The initiative will also support entrepreneurship for young and female entrepreneurs, especially in forward-looking areas. The target set for 2030 is: increasing the private sector’s contribution to Africa’s growth and economic transformation” (EU Neighbours South 2023).

For a more in-depth analysis of how the EU helps Libya through the Southern Neighbourhood program, we need to see what the investments in this country are. Thus, it is acknowledgeable that the EU supports trade and investment sectors as:

“- The EU is Libya’s main trading partner. In 2021, 35.3% of Libya’s imports came from the EU, while 66.4% of Libya’s exports went to the European Union. Between the EU and Libya, in both directions, trade in goods amounted to 28.3 billion euros;

- In 2020, total trade in services between the EU and Libya amounted to 600 million euros;



- In 2019, the EU's foreign direct investments in Libya amounted to 19 billion euros, and Libya's foreign direct investments in the EU are 1.4 billion euros" (European Commission 2022).

In the case of Syria, financial relations with the EU are much lower as the "Bilateral relations are currently suspended on trade in crude oil, petroleum products, gold, precious metals and diamonds. Negatively affected by the conflict, trade volumes have contracted substantially over the years: by 2016 imports from Syria had fallen by 97% and exports by 85% from 2011 levels. Economic fragmentation, the war economy and the failure of the Syrian regime to engage in political or economic transition are the root causes of weak trade" (European Commission 2023).

2. Perception of the EU in Libya and Syria

Although there is a West-East debate within the EU regarding respect for democracy and the rule of law in Eastern European states (an increase in illiberalism in Central and Eastern Europe), authors Olga Burluk, Assem Dandashly and Gergana Noutcheva argue in their article that this debate does not affect the image of the EU for its neighbours to the east and south. At the same time, their research shows that this unchanged attitude of neighbouring societies towards the EU is based on: "1) local notions about the EU as the main economic power and development actor predominantly associated with economic gains and opportunities, against a paler image of the EU as a promoter of democracy and defender of human rights; 2) local understandings of the EU that it is doing better compared to other regional actors and providers of assistance, security and order; and 3) local feelings of being similar (Eastern Neighbourhood) or different (Southern Neighbourhood) from (a group of) EU countries" (Burluk, Dandashly, and Noutcheva 2023, 18).

By means of an opinion poll financed by the European Union on citizens' perception towards EU and its actions through the Southern Neighbourhood Instrument, it has been observed the way of reaction of the Libyan citizens. Thus, Libyans who answered the six questions "managed to give an average of 2.45 correct answers to a total of six questions asked about the EU on average, reflecting a high 'objective' understanding of the EU, in fact, of the second largest in the entire Southern Neighbourhood region. Almost 60% of respondents knew that the EU has a parliament elected by its citizens. Almost 70% of respondents knew that the EU is a political and economic union consisting of 27 European countries. 53% knew that the EU headquarters is in Brussels. 36% had a positive perception of the EU in Libya, and 65% believed that Libya has a good relationship with the EU, and 67% believed that the partnership with the EU is important. The EU is mostly associated with gender equality (64%), followed by human rights (62%), democracy (61%), press freedom (58%) and peace and security (58%)" (EU Neighbourhood



South 2022, Libya (factsheet)). This survey “was conducted in Libya between July and September 2021, with 1,000 people consulted in face-to-face interviews” (EU Neighbourhood South 2022, Libya (factsheet)).

Between November and December 2021, an opinion poll similar to the one carried out in Libya was conducted in Syria. The results are not as optimistic, as 71% of respondents had a negative perception of the EU. However, even in these conditions there is hope that comes from the fact that “12% of the respondents in Syria have a positive image of the EU. This rises to 25% among 15-24-year-olds and 14% among 25-39-year-olds, indicating that young Syrians are much more likely to have a positive image of the EU” (EU Neighbourhood South 2022, Syria (factsheet)).

3. Obstacles Preventing a Rapprochement of Libya and Syria with the EU

In the case of Syria, a first obstacle is the presence of Russian military bases that represent a factor in expanding Russia’s influence in the Mediterranean Sea and the entire MENA region. Moscow’s goal is to replace the weak US presence and compete with the EU and NATO presence in the region. Naval and air bases pose a threat to EU states near Syria. “The US has a force of 900 troops in Syria, near the border with Iraq, with the mission of supporting Kurdish groups to fight Islamic State terrorists, while Russia has several military bases in Syria, with at least 5,000 of the military, since 2016, when it intervened in the civil war in favour of the Syrian president” (Jipa 2023). Also, the presence of pro-Iranian Shiite militias in Syria that are a constant threat to Israel is an obstacle, as the EU and NATO have privileged relations with the state of Israel.

As almost all the states that are members of the EU are also NATO members, there is a correlation between the decisions of the two entities. In this sense, Zsolt Csepregi says that NATO has among its new basic tasks: cooperative security, as well as the prevention and management of crises in its neighbourhood (Csepregi 2023). Moreover, these tasks “are designed to provide stability in regions affected by insecurity, such as MENA, and do everything in their power to avoid a situation where a collective defence threat could arise from these areas” (Csepregi 2023, 25).

Another obstacle is the retention in power of the dictator Bashar al-Assad who does not want a rapprochement with the EU and believes that the EU together with the US are the main culprits for the current state of Syria. He sees in Russia an ally that will help him stay in power.

In the case of Libya, first obstacle is the presence of the Wagner Group. “In Libya, up to 1,200 Wagner Group mercenaries are fighting alongside rebel leader Khalifa Haftar” (Ehl 2023). This private group is in Libya under the guise of providing security services, but they are also involved in lucrative economic activities.



Another obstacle may be the presence of fighter planes in the Jufra base. “Meanwhile, in the south of the country, at the Jufra air base, the Russians are building new runways, hangars and communication centres with the aim of bringing more MiG-29 military aircraft here. Russian planes do not have the official insignia of the Air Force” (DIGI24 2021).

A third obstacle as regards Libya rapprochement to EU is the involvement of Turkey, which supports the side opposing Marshal Khalifa Haftar.

Conclusions

The more the economic relations will increase between the EU and the two failed states, Libya and Syria, the more it is expected that the situation in these states will also improve. The EU can increase its humanitarian aid and offer new ways of engaging member states in these two states.

Through the European Neighbourhood Policy (ENP), the EU is trying to normalize relations with these states in the southern neighbourhood. For most of them it has its own strategy (action plan), which is carried out at the bilateral level, but at the same time it also has several regional projects, which are carried out at the multilateral level. In the case of Libya and Syria, due to the long conflict there are no such ENP action plans, however the EU acts in Libya supporting the internationally recognized Tripoli government, and in Syria at the level of citizens through local organisations.

The perception of the EU in Libya is important to underpin future projects to help stabilize this country. Building strong institutions in Libya would be beneficial to the international community.

The perception of the EU in Syria is much different than in Libya, as two-thirds (71%) of Syrians have an anti-EU stance. This is due to the fact that the head of the state has close relations with Russia, which helped him stay in power. However, also in the case of Syria, there is an increase in the favourable position for the EU among young people (by 25%) aged between 15 and 24.

The EU must continue to provide a perspective for southern neighbourhood states that strive to ensure a better life for their citizens and through this well-being stop emigration, especially for Libya and Syria.

The EU’s ENP aid to Libya and Syria ensures a minimum of stability for the two countries and a better neighbourhood for them. Consequently, the establishment of ENP action plans between the EU and the two states would be an important step in relation in the Southern Neighbourhood.



BIBLIOGRAPHY:

- Bakkour, Samer, and Rama Sahtout. 2023. "The Dimensions and Attributes of State Failure in Syria." *Journal of Balkan and Near Eastern Studies* 25 (6): 1020–36. <https://doi.org/10.1080/19448953.2023.2167337>
- Browning, Christopher S., and Pertti Joenniemi. 2008. "Geostrategies of the European Neighbourhood Policy." *European Journal of International Relations* 14 (3): 519–51. <https://doi.org/10.1177/1354066108092311>
- Bürkner, Hans-Joachim, and James W Scott. 2019. "Spatial Imaginaries and Selective in/Visibility: Mediterranean Neighbourhood and the European Union's Engagement with Civil Society after the 'Arab Spring.'" *European Urban and Regional Studies* 26 (1): 22–36. <https://doi.org/10.1177/0969776418771435>
- Burlyuk, Olga, Assem Dandashly, and Gergana Noutcheva. 2023. "External Democracy Promotion in Times of Internal Rule-of-Law Crisis: The EU and Its Neighbourhood." *Journal of European Public Policy*, February, 1–25. <https://doi.org/10.1080/13501763.2023.2181381>
- Csepregi, Zsolt. 2023. "NATO-ISRAEL COOPERATION IN THE CONTEXT OF THE RUSSIA-UKRAINE WAR." *Strategic Impact* 85 (1): 23–37. <https://doi.org/10.53477/1842-9904-23-02>
- Cucută, Radu. 2015. "The European Union and the Arab Spring. The limits of the European Union's foreign policy." In *Europeanization. Governance and security studies*, edited by G. Anghitoiu (coordinator), 198–211. Bucharest: C.H. Beck. https://www.researchgate.net/publication/346060092_Uniunea_Europeana_si_Primavara_Araba_Limitele_politiciei_externe_ale_Uniunii_Europeane_in_George_Anglitoiu_coordonator_Europeanizarea_Studii_de_guvernare_si_securitate_Bucuresti_CH_Beck
- DIGI24. 2021. "Libya has become an almost completely failed state. The country is practically divided in two by Russia and Turkey, which share their spheres of influence." Accessed April 26, 2023. <https://www.digi24.ro/stiri/externe/libia-a-ajuns-un-stat-aproape-complet-esuat-tara-e-practic-impartita-in-doua-de-rusia-and-turkey-who-share-their-zones-of-influence-1458710>
- Ehl, David. April 2023. "The influence of the Wagner Group in Africa." Deutsche Welle (DW). Accessed April 25, 2023. <https://www.dw.com/ro/influen%C5%A3a-grupului-wagner-%C3%AEn-africa/a-65373380>
- EU Neighbours South. January 2023. "EU-Africa: Global Gateway Investment Package." Accessed March 16, 2023. <https://south.euneighbours.eu/wp-content/uploads/2023/01/eu-africa-global-gateway-investment-package-NA0322190ENN.pdf>
- EU Neighbourhood South. 2022. "Opinion Poll 2021 – Libya (factsheet)." Accessed April 7, 2023. <https://south.euneighbours.eu/publication/opinion-poll-2021-libya-factsheet>



- EU Neighbourhood South. 2022. “Opinion Poll 2021 – Syria (factsheet).” Accessed April 7, 2023. <https://south.euneighbours.eu/publication/opinion-poll-2021-syria-factsheet/>
- European Commission. n.d. “Libya - Bilateral cooperation.” Accessed April 24, 2023. https://neighbourhood-enlargement.ec.europa.eu/european-neighbourhood-policy/countries-region/libya_en
- European Commission. n.d. “Syria - The European Neighbourhood Instrument.” Accessed May 8, 2023. https://neighbourhood-enlargement.ec.europa.eu/european-neighbourhood-policy/countries-region/syria_en
- European Commission. 2018. “European Neighbourhood Policy.” Accessed January 30, 2023. https://commission.europa.eu/strategy-and-policy/policies/european-neighbourhood-policy_en
- European Commission. 2018. “European neighbourhood policy – Objectives.” Accessed January 30, 2023. https://commission.europa.eu/strategy-and-policy/policies/european-neighbourhood-policy_en#objectives
- European Commission. 2022. “Libya Southern Neighbourhood.” Accessed May 9, 2023. https://neighbourhood-enlargement.ec.europa.eu/system/files/2022-05/20.05.2022-factograph_libya_en.pdf
- European Commission. 2023. “Syria Southern Neighbourhood.” Accessed May 9, 2023. https://neighbourhood-enlargement.ec.europa.eu/system/files/2023-03/factograph_syria_en_3.pdf
- European Union External Action. 2021. “European Neighbourhood Policy.” Accessed January 30, 2023. https://www.eeas.europa.eu/eeas/european-neighbourhood-policy_en
- European Union External Action. 2021. “European Neighbourhood Policy – Financial Assistance.” Accessed January 30, 2023. https://www.eeas.europa.eu/eeas/european-neighbourhood-policy_en
- Jipa, Florin. 2023. “Aerial duel between US and Russian jets over Syria.” *Defense and Security Monitor*. Accessed April 25, 2023. <https://monitorulapararii.ro/video-duel-aerian-intre-un-avion-american-si-unul-rusesc-deasupra-siriei-1-50128>
- Richmond, Oliver P., Sandra Pogodda, and Gëzim Visoka. 2023. “The International Dynamics of Counter-Peace.” *European Journal of International Relations*, April. <https://doi.org/10.1177/13540661231168772>
- Sieglinde Gstöhl. 2016. Introduction: putting the European Neighbourhood Policy in context. In *The European Neighbourhood Policy in a comparative perspective: models, challenges, lessons*. Edited by Sieglinde Gstöhl. New York: Routledge.



ROMANIA'S SPACE ASPIRATIONS AND THE EU SPACE STRATEGY FOR SECURITY AND DEFENCE

*Ulpia-Elena BOTEZATU**

The article explores the interplay between European Union's Space Strategy for Security and Defence and Romania's space aspirations, analysing its key facets and their potential effects. As space gains significance for security and defence of the EU as a whole, understanding its opportunities and challenges is crucial. Investigating elements such as shared threat awareness, space system resilience, response strategies, and responsible behaviour in outer space, the article provides insights for stakeholders to harness EU space capabilities. The article concludes by assessing implications for the domestic realm. EU Space Strategy for Security and Defence addresses space intricacies with political, operational and other fields of action. By focusing on vital components such as threat understanding, system protection, responsive measures, and cooperative behaviour, the article sheds light on EU Space Strategy's strategic importance in the defence and security realms.

Keywords: *Space Domain Awareness; EU Space Strategy for Security and Defence; Space Assets; Space Surveillance and Tracking; Space Situational Awareness; Space Security; Resilience; responsible behaviour.*

Introduction

In an era marked by unprecedented technological advancements and a rapidly evolving geopolitical landscape, securing the access to outer space (civilian or military) has become a paramount concern for nations around the globe. As strategic competitors increasingly target the space domain, the European Union (EU) has taken

** Ulpia-Elena BOTEZATU works within the Romanian Space Agency, and also within the National Institute for Research & Development in Informatics – ICI Bucharest, Romania. E-mail: ulpia.botezatu@rosa.ro; ulpia.botezatu@ici.ro*



steps to strengthen its presence and resilience in space through the development of a comprehensive Space Strategy for Security and Defence (European Union, EU Space Strategy for Security and Defence: for a stronger and more resilient European Union 2023). This strategy, conceived under the broader framework of EU Strategic Compass (European External Action Service n.d.) seeks to not only safeguard critical space infrastructure but also to harness the opportunities presented by the space domain to bolster security efforts on Earth (Georgescu, et al. 2016, Bucovetchi, Botezatu and Stanciu 2020).

As the EU propels forward with its visionary space strategy, an alignment emerges with the aspirations of Romania, a nation marked by its nascent space ambitions and a legacy of innovation. Romania's earnest dedication to space research and technology casts it as a significant collaborator in the realization of EU objectives. With an emerging space sector encompassing, inter alia, Space Surveillance and Tracking capabilities, Earth observation expertise, and exploration at the vanguard of space science, Romania has subtly showcased its commitment to pushing the frontiers of scientific discovery and technological progression (Botezatu and Piso, Vital Outer Space Infrastructures: Romania's Pursuits and Achievements 2020). This alignment harmonizes flawlessly with EU strategy, which envisions a collective strengthening of space situational awareness and safeguarding of space-based assets, fact that constitute the subject of this article.

Romania's strategic position at the crossroads of Eastern and Western Europe further enhances its potential to contribute to EU space endeavours (Botezatu and Piso, Vital Outer Space Infrastructures: Romania's Pursuits and Achievements 2020). The nation's commitment to fostering international collaboration in space research and innovation resonates with the EU's emphasis on partnership and cooperation in the space domain, particularly within EU Space Regulation mechanisms, EUSST Partnership as well as in other intergovernmental organizations such as the International Standardization Organization and European Space Agency. By aligning its space ambitions with EU strategy, Romania has the opportunity to not only fortify its own space security but also to serve as a beacon of collaboration for other like-minded nations aspiring to navigate the complexities of the space frontier. As the EU invests in space situational awareness, the security of space infrastructure, and the development of joint operational mechanisms, Romania's contribution could prove instrumental in achieving a safer and more prosperous space environment for all (Botezatu and Piso, Vital Outer Space Infrastructures: Romania's Pursuits and Achievements 2020, EUSST 2023).

Bearing these factors in mind, this article explores the intersecting pathways of the European Union's Space Strategy for Security and Defence and Romania's emerging presence in the space domain, particularly in the strategic and policy strata. Romania's active participation in organizations such as the European Space Agency



(ESA), EUSST Partnership, in addition to United Nations (UN), and European Union (EU) reflects its commitment to shaping the regulatory landscape of outer space activities. By examining the key pillars of the EU strategy and aligning them with Romania's space endeavours, I explore how these intersecting narratives pave the way for enhanced space security, technological advancement, and collaborative achievements. Through the fusion of EU ambition and Romania's dedication, a novel chapter in the quest for space security and exploration is poised to unfold, with promising benefits for the society at large.

1. EU Space Strategy for Security and Defence

EU Space Strategy for Security and Defence has been released in March 2023, following a series of consultative meeting with EU Member States. Nevertheless, this endeavour ought to be contextualized within an array of regional initiatives, encapsulated in multiple documents. These will be succinctly outlined in the following sections to provide a unified comprehension of the foundational elements of this Space Strategy. It should be noted that the consultative and collaborative process with EU Member States at operational level is still in progress. As such, this article is not intended to be comprehensive, but rather aims to shed light on the ongoing progression for the sake of transparency.

The EU's stance on security and defence has seen substantial transformation through various strategy documents over the years. Initially, the 2003 European Security Strategy (G. Council of the European Union 2009), helmed by Javier Solana, served as the foundational roadmap for addressing numerous security issues. This was paralleled by EU anti-proliferation strategy, which highlighted the Union's resolve to address weapons of mass destruction (Council of the European Union 2003), especially in light of the discord over the American invasion of Iraq in 2003 (van Ham 2011).

More than ten years later, a holistic approach emerged with the creation of the Global Strategy under the High Representative of the Union for Foreign Affairs and Security Policy, Federica Mogherini (European Union External Action Service, A Global Strategy for the European Union's Foreign and Security Policy 2016). This plan broadened the scope to include more than just security concerns, incorporating wider diplomatic objectives. It also distinguished itself by calling for civil society's opinion, although it lacked the formal endorsement from EU member nations. Following this, the 'Strategic Compass' (European Union External Action Service, A Strategic Compass for Security and Defence 2022) was issued in 2022, accentuating the need to prepare for challenges in space, thereby paving the way for EU Space Strategy for Security and Defence.

Spearheaded by Josep Borrell, the latest space-focused strategy is a departure from a broader approach to a more specialized one. Though detailed operational

plans are less explicit in this new strategy, much like its forerunners, it nonetheless reflects a collective agreement on the evolving security landscape and a willingness to employ a coordinated toolkit to tackle these challenges.

The new EU Space Strategy represents an extension of EU ongoing efforts to solidify its strategic autonomy in various sectors, ranging from security and trade to technology and now, the domain of outer space. Nevertheless, this approach is to be identified in various formats also in the previous programmatic EU documents. One recurring theme in the progressive evolution of these strategies is the ambition for European self-reliance in strategic matters, first officially noted in a 2013 document. This concept has increasingly found its way into subsequent policies, receiving explicit support from the European Commission under Ursula von der Leyen’s leadership (Burni, et al. 2023). The Strategic Compass, informed by the EU’s inaugural collective threat assessment, further entrenches this aim and notably incorporates outer space policy—a topic previously neglected.

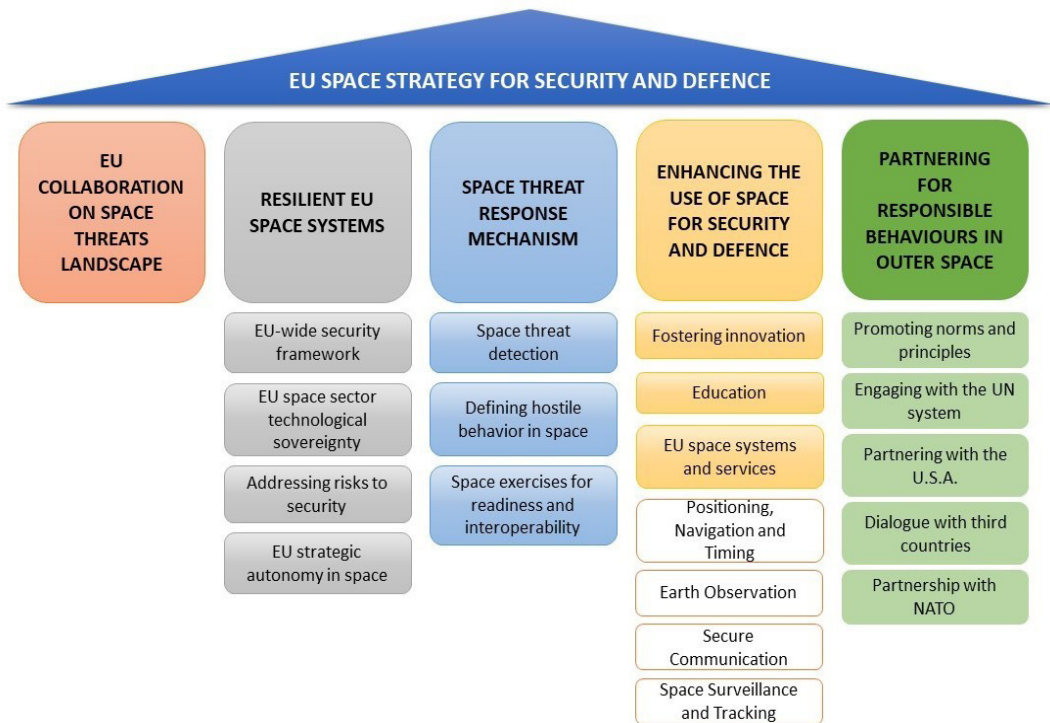


Figure no. 1: Key dimensions of the EU Space Strategy for Security and Defence (visualization made by author after the text of the Space Strategy for Security and Defence)



EU Space Strategy for Security and Defence stands as a resolute response to the evolving challenges posed by the intensifying competition in outer space (European Union, EU Space Strategy for Security and Defence: for a stronger and more resilient European Union 2023). At its heart lies a three-fold mission: to secure access to space domains, enhance resilience to emerging threats, and ensure the peaceful and responsible use of outer space. In its comprehensive approach, the strategy underscores the interconnectedness of space security with broader geopolitical stability, recognizing that the activities and capabilities of strategic competitors can profoundly impact global security dynamics. Central to the strategy's core elements is the need to fortify situational awareness and safeguard space-based assets (see Figure no. 1). This is particularly crucial given the rising congestion of orbital debris and the heightened risk of collisions that could severely disrupt crucial services such as communication, navigation, and Earth observation. The EU intends to enhance its space situational awareness through investments in surveillance and tracking technologies, enabling timely and accurate threat assessment (EUSST 2023). Such awareness not only protects valuable space infrastructure but also bolsters international efforts to maintain a safe and sustainable space environment – a goal consonant with the EU commitment to responsible and cooperative space conduct.

The achievement of security and self-defence in outer space domain is key. The EU recognizes that the space frontier is no longer insulated from terrestrial security challenges; it has become a contested arena for strategic competition, necessitating the safeguarding of critical space assets against threats such as cyberattacks, malicious interference, and the weaponization of outer space. In this context, the EU approach is to synergize civil and military capacities, fostering collaboration between civilian and military intelligence and security services. The use of the EU Single Intelligence Analysis Capacity (SIAC), initially intimately linked to the establishment of the European Security and Defence Policy (ESDP) and the creation of the post of High Representative in 1999, serves as a central hub for processing strategic intelligence, ensuring a unified response to emerging threats and enabling rapid decision-making across EU institutions and Member States.

To achieve its goals, the EU has laid out a comprehensive set of strategies and action plans. The EU Space Strategy envisions strengthening EU cyber defence posture to guard against state-sponsored cyberattacks on critical space infrastructure. Through the European Cyber Resilience Act, the EU aims to enhance its cyber infrastructure, establish Security Operations Centres, and foster cross-border cooperation to mitigate cyber threats. Furthermore, the strategy places strong emphasis on countering hybrid threats, including foreign information manipulation and interference. By developing a Foreign Information Manipulation and Interference Toolbox, the EU seeks to detect, analyse, and respond effectively to disinformation campaigns and hybrid tactics.



In conclusion, the EU Space Strategy for Security and Defence stands as a testament to the union's commitment to fostering a secure, resilient, and cooperative space environment. By addressing the multifaceted challenges presented by the growing militarization and congestion of outer space, the strategy endeavours to protect the benefits of space activities for all. As EU ambitions converge with Romania's space endeavours, a collaborative and secure space future emerges, promising not only enhanced security but also pioneering achievements in the exploration and utilization of the outer space frontier.

2. Towards an European Strategic Autonomy?

How does EU Space Strategy contribute to its stated goal of achieving strategic autonomy? Firstly, the strategy aims to transition from a space policy primarily focused on civilian applications to one that also includes certain military aspects, thus openly recognizing the 'dual-purpose nature of space resources. Secondly, it seeks to set a foundational framework for safeguarding EU's assets in space while coordinating with individual nations' space defence plans. This aims to gradually bring about a harmonized Space Strategy across all EU member countries.

For now, actions to align member state policies at the EU level can be carried out through Article 189 of the 2007 Treaty on the Functioning of the European Union (TFEU) (European Union, Treaty on the Functioning of the European Union 2017), which encourages the development of a cohesive European space policy focused on scientific advancement, industrial competitiveness, and policy implementation. Nonetheless, the actual framing and execution of such a policy face considerable challenges due to the existing distribution of powers between the EU and its member states. The end goals implicitly suggest a shift of certain powers to the EU that are currently held by individual countries. While Article 189 TFEU does not allow for the standardization of member state laws, Article 4.3 TFEU clarifies that EU powers should not inhibit member states from exercising their own. Although the space strategy cannot alter this legal framework, it does spotlight the possibilities for strategic independence in the domain of space for the EU.

Additionally, regarding partnerships and treaties in the realm of space security, the EU formulates its stance on space defence within the context of its commitment to global norms, as laid out in Article 2 of the 1992 Treaty on European Union (TEU). The EU, as a strong proponent of international legality, advocates for the non-violent use of space, compliance with global space laws, and the prevention of a space arms race. Yet, the EU also needs to safeguard its space resources. The document is organized into multiple sections, each addressing different aspects: Section II dives into the importance of space defence in today's international relations; Section III provides an overview of space resources either currently in



place or under development by EU countries; Section IV elaborates on the goals of the EU Space Strategy; Section V offers policy suggestions to tackle the strategy's limitations; and Section VI concludes with some final thoughts.

Pol Morillas argues that for the EU to effectively establish its own strategic autonomy strategy in foreign matters, it necessitates a well-structured institutional and policy landscape (Morillas 2021). He points out three major obstacles: the hindrance of progress due to veto power at the Union level, ambiguity surrounding the rules of Qualified Majority Voting, and an overly restrictive concentration on issues of security and defence. To navigate past these impediments, firstly Morillas advocates for expanding the scope of strategic autonomy to encompass all facets of foreign affairs, thus promoting a more unified approach. In a second point, he underscores the critical role that EU member nations must play in working towards this independent strategy. Thirdly, he recommends zeroing in on specific thematic and geographical areas where the need for autonomy is most pressing and where strengths are most evident. In his fourth point, Morillas encourages stronger cohesion and leadership within the EU, including the cultivation of political agreement. As a final point, he proposes employing adaptable collaboration strategies, such as inviting non-member nations to participate in specialized projects.

Furthermore, Sven Biscop contends that the success of EU ambition for strategic autonomy is intimately linked to its level of integration, particularly in extending its military capabilities globally (Biscop 2022). Biscop warns that as America refocuses its attention towards Asia and as surrounding regions become more unstable, the urgency for the EU to act is escalating. He lists five critical perspectives that need to be universally adopted by EU bodies and its member nations for the idea of strategic autonomy to materialize. These perspectives entail seeing the EU as a major actor on the world stage, taking the lead in establishing stability in adjacent regions, committing to the 1999 Headline Goals, striving for autonomy by consolidating European resources, and facilitating the amalgamation of national military forces into enduring, unified structures. Biscop clarifies that such military integration does not necessarily lead to a single European military force but can be achieved through effective pooling of national resources.

Moreover, Ana E. Juncos contends that the current discourse on Europe's strategic autonomy is overly concentrated on military and defence initiatives (Juncos 2022). Juncos emphasizes that EU core competencies actually lie in the spheres of conflict avoidance, mediation, post-conflict reconstruction, and fortifying resilience. She insists that while beefing up its armed capabilities, the EU must not neglect its civilian roles in ensuring global security. Juncos also advocates for improved synergies in various foreign policy sectors, like the intersection of climate change and security, as well as between the EU and global institutions like the United Nations. She also calls on member nations to honour their pledges in these fields, aligning them with EU broader strategic objectives.



In their policy analysis, Claudia Major and Alessandro Marrone explore the idea of European self-autonomy in strategic affairs, focusing on the critical role of robust alliances (Major and Marrone 2022). They contend that the goal is not to be isolated from external entities, but to have the capacity to accomplish objectives through effective collaborations. The authors point out that the EU's existing partnerships, although numerous, lack a coherent focus. As a way forward, they advise giving special attention to affiliations with NATO, the US, and the UK, given their pivotal roles in maintaining European stability. They believe that these alliances can work in harmony, generating a positive cycle that is mutually beneficial. To form productive alliances, Major and Marrone emphasize the importance of gauging what these principal partners seek to gain from a collaboration with the EU, as well as what the EU itself can bring to the table. They assert that any alliance efforts should commence with a well-articulated set of European objectives.

To secure autonomous strategic capabilities, advancing integration in the areas of defence and security is of essential importance (Burni, et al. 2023). There is a need for synchronized goals among EU institutions and member states, along with the requirement for more versatile and streamlined organizational systems. EU's aims in its interactions with strategic partners are also of paramount importance. Although the progress to date falls short of expectations, it is both practical and advantageous to build upon existing arrangements and systems to further strategic autonomy, such as the collective pooling and sharing capabilities of EU Member States in the field of SSA and SST. Considering the unstable and high-risk global security environment, the EU not only faces an urgent need to actualize its strategic autonomy, but the current political climate also provides a favourable window for such action.

Although there are multiple perspectives on the EU's efforts to achieve strategic autonomy, particularly in the realms of security and defence, well-structured institutional framework, along with EU member nations being actively involved in shaping this strategic regional autonomy are emphasized. In addition, the scope of strategic autonomy should be broadened to include all aspects of foreign affairs. Moreover, the Strategy highlights the urgency of EU's actions, especially as the US shifts its focus towards Asia, and the neighbouring regions become more unstable. The importance of integrating military capabilities is stressed, not necessarily leading to a unified European military, but through effective pooling of national resources. Moreover, the EU's core competencies in conflict avoidance, mediation, and post-conflict reconstruction should not be neglected. Strategic partnerships, particularly with NATO, the US, and the UK, are seen as crucial for achieving European goals.

In the outer space realm, the call for more integrated defence capabilities could extend to space-based assets. EU strategic partnerships could be particularly important for advancing its space strategy, given the global nature of space



exploration and security. Finally, the stress on broadening the scope of strategic autonomy to include all foreign affairs could easily incorporate space, given its growing role in global communications, security, and surveillance. The unstable global environment adds urgency to advancing these space-related aspects of the EU's strategic autonomy.

2.1. An European space defence policy?

In our interconnected global society, the outer space is no longer just a frontier for scientific inquiry but a vital arena for military capabilities. The marriage between advanced satellite technology and armed forces is more than evident; it's now a cornerstone for executing coordinated operations and making informed decisions on the battlefield. This increasing dependency on cosmic assets amplifies the need for comprehensive policies that focus on cosmic defence and security.

Satellites are no longer just a luxury; they are a necessity for modern military undertakings. From instantaneous data exchanges that enhance collaborative efforts to Global Navigation Satellite Systems crucial for mission-critical navigation and precise offensive actions, these space-borne technologies serve both military and civilian ends. They have a dual role, not only fuelling military applications but also contributing significantly to civil life and global economies.

Yet, the dependencies come at a time of heightened global conflict and geopolitical shifts. Far from being a neutral zone, space has seen a concerning trend towards militarization and outright weaponization. Nations like the US, China, and Russia, alongside emerging space powers such as India, are not just developing technologies for defence but are also pushing the envelope towards offensive capabilities. These include anti-satellite systems that could impair or even obliterate orbital assets, adding a new layer of hazardous debris in orbit and introducing additional variables into an already complex equation.

Against this backdrop, the European context cannot be overlooked. Countries including France, Germany, and Italy have robust space programs and are contributors to the EU's space endeavours. Recognizing the vulnerabilities posed by this new frontier, the EU has rolled out its own roadmap for securing its orbital assets, highlighted in its Space Strategy of 2023. The agenda is not just a space security initiative but is woven into EU broader geopolitical and defence schemes. One example is the collective effort of currently 15 EU Member States to share civil-military observational data among each other and to provide services of Collision Avoidance, Fragmentation and Re-Entry into atmosphere to satellite operators across the world (EUSST 2023).

Space is not merely a regional concern but a global one, demanding worldwide collaboration for maintaining its peaceful usage. In this vein, EU Space Strategy dovetails with overarching global efforts, notably the policies



espoused by the NATO. The mutual objective is to capitalize on the benefits of orbital space while minimizing associated vulnerabilities. This involves creating globally accepted norms that make space a cooperative domain rather than a battleground.

In sum, the strategic importance of orbital assets for contemporary military actions, combined with the progressively contested nature of space, compels national and multinational bodies like the EU to establish vigorous and well-coordinated space defence strategies. These plans not only protect specific national and regional interests but also serve the broader goal of maintaining global peace and stability, both on Earth and beyond.

2.2. Novelties of the EU Space Strategy for Security and Defence

The EU Space Strategy for Security and Defence heralds a new era of strategic relevance in the realm of space activities. This visionary blueprint not only outlines the ambitions of the EU in space but also resonates with its overarching goals of security, defence, and innovation. As the strategy takes shape, its implications reverberate across member states, including Romania, offering profound strategic opportunities and presenting challenges that warrant careful consideration.

At its core, the EU Space Strategy seeks to enhance the security and defence capabilities of the EU by leveraging space assets. With a growing dependence on space-based services such as communication, navigation, and Earth observation, securing these critical infrastructures becomes imperative (Botezatu, Attempted Cyber Security of Systems and Operations in Outer Space: an Overview of Space-based Vulnerabilities 2023). The strategy acknowledges that space is not only an avenue for exploration and knowledge but also an arena where security and defence considerations converge.

Among the initiatives outlined in EU Space Strategy, several ground-breaking elements are noticeable. Most prominently, the strategy introduces a paradigm shift, moving from primarily scientific and civilian space activities to a greater emphasis on defence-related applications. This involves the advancement of new versions of existing projects like Copernicus and the forthcoming IRIS², in addition to expanding the defence-oriented aspects of the existing Galileo project's Public Regulated Service. The plan also seeks to unify space legislation across EU member nations.

There's a marked resolve to invest significantly and set specific timelines to realize these objectives, indicating a strong commitment to the strategy's aims. The strategy also includes the participation of EU Single Intelligence and Analysis Capacity (SIAC) to provide annual assessments of space-related threats, alongside utilizing Space Domain Awareness (SDA) capabilities from those member states that have them.



The strategy also proposes integration among the European Defence Fund (EDF), the Horizon Europe research program, and the EU Space Programme to fortify space-related defence capacities. Furthermore, it lays out plans to conduct military exercises in space, although the exact nature of these is yet to be detailed. Notably, the strategy also signifies a new depth in defence collaboration with the US and NATO in the realm of space.

This strategic shift underscores the importance of developing space situational awareness (SSA) capabilities. The strategy advocates for improved space traffic management, collision avoidance, and enhanced surveillance of activities in orbit. For member states like Romania, which actively participates in a consortium of space surveillance and tracking technologies, the strategy aligns seamlessly with ongoing efforts to ensure the security and sustainability of space operations.

Moreover, the strategy amplifies the role of space in defence operations. It advocates for the integration of space-based assets in military activities, including communication, navigation, and reconnaissance. This integration not only enhances the effectiveness of defence operations but also underscores the need for robust space capabilities to deter and respond to potential threats. Romania's commitment to strengthening its space capabilities, through participating in operational global exercises such as Global Sentinel, or in sharing SST data at EU level through its membership in EUSST Partnership, positions the nation to leverage these strategic advancements.

However, the implementation of the EU Space Strategy is not without challenges. One notable concern is the potential militarization of space and the associated risks of an arms race. As member states bolster their space capabilities for security and defence purposes, the fine line between peaceful exploration and militarization must be carefully navigated. The strategy's emphasis on responsible conduct in space aims to mitigate this risk, advocating for the prevention of conflicts in orbit.

Furthermore, the strategy necessitates significant investment in research, technology development, and infrastructure. Ensuring a harmonized approach among member states is crucial to achieving the strategy's goals. The allocation of resources, technology sharing, and collaborative research endeavours demand consistent commitment and coordination.

In conclusion, the EU Space Strategy for Security and Defence unveils a transformative path for Europe's engagement in the space domain. Its strategic implications encompass the realms of security, defence, and innovation, echoing the broader aspirations of the EU. Romania's alignment with this strategy positions the nation as a significant player in the space landscape. While opportunities for enhanced security and defence capabilities abound, challenges such as the responsible use of space and resource allocation beckon careful consideration. As the strategy's contours continue to unfold, its successful realization will rely on the collective determination



of member states, including Romania, to harness the strategic potential of space for the betterment of the European continent and beyond.

2.3. Remaining gaps

The EU's space strategy offers a more integrated perspective, but lacks the precision in articulation one might desire, especially concerning defence-related issues. In contrast to the explicit space policies of individual nations like France or the UK, EU approach is notably more ambiguous. Given the absence of prior, EU-centric directives pertaining to space, assessing its strategy necessitates drawing comparisons with existing frameworks from other significant actors in the realm of space technology.

Furthermore, it's noteworthy that the language of the strategy sidesteps two significant dimensions: disarmament and non-proliferation on the one side, and the peaceful utilization of outer space, on the other, i.e. 4th and 1st UN Committee issues. Instead of deftly intertwining these essential vocabularies to forge a comprehensive approach, the strategy manifests ambiguity. This omission not only leaves gaps in policy but also creates room for divergent interpretations, weakening the strategy's impact and clarity. By failing to explicitly address both the disarmament aspects and the peaceful uses of outer space, the strategy misses an opportunity to present a nuanced and robust roadmap that could balance security concerns with ethical imperatives.

The EU document tends to prioritize crafting a unified narrative over emphasizing military aspects. It conspicuously omits language commonly found in national space strategies concerned with defence, such as terms that allude to acquiring a "tactical advantage" or realizing "commercial gains". This deliberate lexicon choice is unsurprising, considering EU circumscribed role in defence matters, yet it circumscribes the document's efficacy in addressing issues of defence. Moreover, from a technological perspective, the EU's capabilities in space fall short of the rigorous demands inherent to defence applications. Constraints such as sporadic updates to satellite imagery and limited resolution undermine the efficacy of the strategy for defence-related objectives. This discrepancy accentuates the need for deeper involvement from the defence ministries of member nations.

The endeavour to establish a cohesive space law framework within the EU encounters a variety of challenges. While there have been isolated initiatives and legislative suggestions, these efforts fall short of achieving comprehensive legal alignment among member nations – a process further muddled by the constraints of extant EU agreements.

Moreover, EU aspiration to fortify its space security relationship with the US invites scrutiny. Although international partnerships often yield advantages,



an excessive dependence on the US could imperil EU own quest for strategic autonomy. This poses a complex dilemma that necessitates judicious evaluation to ensure congruence with broader objectives, notably those articulated by High Representative Josep Borrell (Muñoz and Portela 2023).

3. Romania's Space Ambitions

Romania, a quiet yet pioneering nation in the space domain, has quietly etched its name onto space exploration. Historically part of the Eastern Bloc, Romania played an understated but significant role in space missions during the 1970s and 1980s. Collaborating within the Soviet-led framework, the country contributed to joint missions that saw cosmonauts of diverse nationalities journeying into the extra-atmospheric realm.

One of Romania's distinguished cosmonauts, Dumitru-Dorin Prunariu, participated in the Soyuz 40 mission as part of the Interkosmos program in 1981. A decade later, Prunariu's pivotal role continued as he co-founded the Romanian Space Agency (ROSA), a notable milestone that led to Romania's integration into the European Space Agency (ESA) in 2011. This historical progression reflects Romania's commitment to space exploration and collaboration within international space agencies.

Romanian was about to raise its flag alongside those of 12 other European nations on the primary stage of VEGA C, an orbital rocket, launched in July 2022 (AGERPRESS 2022). As a member of the ESA, Romania's growing significance in space activities is acknowledged and celebrated on the global stage.

A crucial facet of Romania's growing space ambitions is its keen involvement in space surveillance and tracking (SST) technologies. By contributing to a SST Partnership encompassing 15 European countries, Romania underscores its dedication to monitoring and tracking space objects, including the burgeoning population of satellites orbiting Earth in low-Earth orbit (EUSST 2023). This commitment aligns seamlessly with the principles of the EU Space Strategy, emphasizing the importance of secure and sustainable space activities.

This year, Romania further solidified its presence in the international space community by signing the Artemis Accords proposed by NASA (NASA n.d.). The accords establish shared principles and best practices for lunar exploration. Romania's engagement in this initiative echoes the strategy's emphasis on global collaboration and responsible space conduct.

As Romania sets its sights higher, its collaboration with emerging space entities also comes to the fore. Such endeavours resonate with the EU Space Strategy's core elements, emphasizing innovation, resilience, and global collaboration. Romania's journey to the stars is a testament to its commitment to pushing the boundaries



of exploration while aligning harmoniously with EU strategic vision for the space domain.

As Romania continues to deepen its integration within the EU, it's crucial to recognize the growing significance of EU Space Strategy for Security and Defence. Below are several key recommendations on how Romania can benefit and contribute to this strategy.

Firstly, Romania should actively engage in the initial stages of the updated Copernicus program. Since Copernicus has been valuable for both civilian and defence sectors, it offers Romania an opportunity to bolster its military capabilities in areas like surveillance and intelligence gathering. By having an active role in shaping this program, Romania can ensure that its defence requirements are met, while potentially influencing broader EU policies.

Secondly, given that space capabilities vary among EU member states, Romania should advocate for and participate in a structured coordination system for defence-related space issues. While Romania may not have extensive space assets, contributing to this framework could lead to shared knowledge and resources. This inter-state collaboration would not only elevate Romania's own capabilities but also reinforce the collective defence mechanisms of the EU.

Thirdly, Romania could benefit from closely observing advancements in the US space launcher sector, especially the strides made by companies like SpaceX. Drawing insights from these developments could inform Romanian contributions to EU strategies for independent space access, enhancing both EU and Romania's competitive edge in this sector.

Furthermore, Romania has a stake in the harmonization of space-related laws within the EU. By participating in the creation of a unified legal framework for space activities, Romania can help ensure that regulations align with its own national interests, while also contributing to the collective objectives of the EU. This could cover areas such as space debris management, traffic regulations, and the protection of space assets.

Moreover, Romania should leverage the expertise of existing EU agencies specialized in space activities, such as the European Union Satellite Centre (SatCen). By actively participating in these specialized entities, Romania can capitalize on existing knowledge and resources, thereby enhancing its role and standing within EU overall space strategy.

Finally, as Romania takes strides in asserting its presence in the outer space domain it becomes imperative to articulate a comprehensive national space policy framework. Such a blueprint should be underpinned by strong political will and be crafted by individuals with specialized expertise in space policy. Moreover, to fully harness the potential of space for national development, security, and international collaboration, Romania must institute a well-coordinated institutional framework.



This structure should seamlessly integrate civilian and military space agencies, thereby enabling a harmonized approach to space exploration, commercial ventures, and defence applications. In doing so, Romania will not only fortify its role in the ESA, EUSST Partnership and in other intergovernmental organizations,

In conclusion, Romania stands to gain considerably from an integrated and robust EU Space Strategy for Security and Defence. By proactively engaging in these key areas, Romania can significantly enhance its defence capabilities, contribute to collective EU security, and strengthen its position within the Union.

Conclusions

In the wake of an ever-evolving global landscape, the convergence of space exploration, security, and defence has ushered in a new paradigm. This article has explored the confluence of the European Union's Space Strategy for Security and Defence with Romania's space ambitions, unearthing a narrative of strategic foresight, collaboration, and potential.

The main findings of this article underscore the resonance between the EU Space Strategy and Romania's aspirations. Romania, with its quiet space exploration history, has embraced a trajectory that aligns with the broader objectives of the strategy. The country's active participation in space surveillance and tracking technologies, its microsatellite launch initiatives, and contributions to planetary exploration all reflect a harmonious integration with the strategy's emphasis on bolstering space capabilities for security and defence.

The EU's concerted efforts to unite member states under a shared vision have paved the way for a collaborative approach to space exploration, where individual aspirations complement and amplify collective endeavours. Romania's endeavours in space stand as a statement of the broader European commitment to fortify security and defence through technological innovation and cooperative ventures.

Importantly, the EU Space Strategy holds far-reaching significance beyond the borders of individual member states. By intertwining security and defence imperatives with space exploration, the strategy charts a course toward a safer and more resilient orbital environment. The emphasis on responsible conduct and conflict prevention in space serves as a testament to EU commitment to maintaining the peaceful use of outer space for the betterment of humanity.

As the EU Space Strategy takes flight and Romania continues to contribute its expertise and resources, the confluence of these efforts embodies a promising trajectory for the future. By harmonizing security, defence, and space exploration, the EU and its member states, including Romania, are not only propelling their own interests but also exemplifying the potential for global cooperation in the pursuit of common goals.



In essence, the journey into the final frontier has evolved into a journey of strategic unity and shared aspirations. The legacy of Dumitru Prunariu's space exploration and Romania's subsequent rise as a space pioneer converge with the EU Space Strategy's unfolding chapters, encapsulating the spirit of innovation, exploration, and security that define the space endeavours of the modern era.

BIBLIOGRAPHY:

- AGERPRESS. 2022. *Romanian Space Agency: Successful launch for the Vega-C rocket*. July 13. Accessed September 23, 2023. <https://www.agerpres.ro/english/2022/07/13/romanian-space-agency-successful-launch-for-the-vega-c-rocket--949386>
- Biscop, S. 2022. "Strategic autonomy: not without integration." *FEPS Policy Briefs, Strategic Autonomy Series* 1-16. Accessed August 19, 2023. <https://feps-europe.eu/wp-content/uploads/2022/01/Strategic-Autonomy-Not-without-integration.pdf>.
- Botezatu, U.E. 2023. "Attempted Cyber Security of Systems and Operations in Outer Space: an Overview of Space-based Vulnerabilities." *Romanian Cyber Security Journal* 5 (1): 67-76. doi:10.54851/v5i1y202306
- Botezatu, U.E., and M. I. Piso. 2020. "Vital Outer Space Infrastructures: Romania's Pursuits and Achievements." In *Space Infrastructures: From Risk to Resilience Governance*, by U. Tatar, A.V. Gheorghe, O.F. Keskin and J. Muylaert, 329 – 336. Botezatu, U.E., Piso, M. I. (2020), Vital Outer Space Infrastructures: Romania's Pursuits and Achievements: IOS Press. doi:10.3233/NICSP200033
- Bucovetchi, O., U.E. Botezatu, and R. Stanciu. 2020. "Security of Space and Critical Infrastructures." *Proceedings of the 36th IBIMA Conference: 4-5 November 2020, Granada, Spain*.
- Burni, A., E. Knudsen, J. Nogarede, N. Pirozzi, and D. Rinaldi. 2023. "Progressive pathways to European strategic autonomy: How can the EU become more independent in an increasingly challenging world?" *FEPS Policy Brief* 1-21.
- Council of the European Union. 2003. "EU Strategy against Proliferation of Weapons of Mass Destruction." *15708/03*. Brussels, December 10. Accessed August 19, 2023. <https://data.consilium.europa.eu/doc/document/ST-15708-2003-INIT/en/pdf>
- Council of the European Union, General Secretariat of the Council. 2009. *European Security Strategy: A Secure Europe in a Better World*. Publications Office. doi:<https://data.europa.eu/doi/10.2860/1402>
- European External Action Service. n.d. "A Strategic Compass for the EU." Accessed August 17, 2023. https://www.eeas.europa.eu/eeas/strategic-compass-security-and-defence-1_en
- European Union. 2023. "EU Space Strategy for Security and Defence: for a stronger and more resilient European Union." Accessed August 17, 2023. [52](https://defence-</p></div><div data-bbox=)



- industry-space.ec.europa.eu/eu-space-policy/eu-space-strategy-security-and-defence_en
- European Union External Action Service. 2016. “A Global Strategy for the European Union’s Foreign and Security Policy.” June. Accessed August 19, 2023. https://www.eeas.europa.eu/eeas/global-strategy-european-unions-foreign-and-security-policy_en
- . 2022. “A Strategic Compass for Security and Defence.” Accessed August 19, 2023. https://www.eeas.europa.eu/eeas/strategic-compass-security-and-defence-0_en
- European Union. 2017. *Treaty on the Functioning of the European Union*. December 15. Accessed August 19, 2023. <https://eur-lex.europa.eu/EN/legal-content/summary/treaty-on-the-functioning-of-the-european-union.html>.
- EUSST. 2023. *Space Surveillance and Tracking*. Accessed August 19, 2023. <https://www.eusst.eu/>
- Georgescu, A., U.E. Botezatu, A.-D. Popa, Ș. Popa, and Ș.-C. Arseni. 2016. “Critical infrastructure dependency on space systems.” *“Mircea cel Bătrân” Naval Academy Scientific Bulletin* (“Mircea cel Bătrân” Naval Academy Press, Constanta, Romania) X (1).
- Juncos, A.E. 2022. “Elevating the EU’s added value as a security provider.” *FEPS Policy Briefs* 1-22. Accessed August 23, 2023. <https://feps-europe.eu/wp-content/uploads/2022/02/220202-policy-brief-elevating-eu-added-value-as-security-provider.pdf>
- Major, C., and A. Marrone. 2022. “Partnerships and European strategic autonomy: how to turn them into a win-win approach.” *FEPS Policy Brief, Strategic Autonomy Series* 1-25. Accessed August 19, 2023. https://feps-europe.eu/wp-content/uploads/2022/07/Proof_4.7.22_Partnerships-and-European-Strategic-Autonomy.pdf
- Morillas, P. 2021. “An architecture fit for strategic autonomy: institutional and operational steps towards a more autonomous EU external action.” *FEPS Policy Brief, Strategic Autonomy Series* 1-21. Accessed August 19, 2023. https://feps-europe.eu/wp-content/uploads/2021/11/211125-policy-brief_strategic-autonomy2.pdf
- Muñoz, R.G., and C. Portela. 2023. “The EU Space Strategy for Security and Defence: towards strategic autonomy?” *Non-Proliferation and Disarmament Papers* (SIPRI) 83. https://www.sipri.org/sites/default/files/2023-06/eunpdc_space_paper_no_83_0.pdf
- NASA. n.d. *The Artemis Accords*. Accessed August 17, 2023. <https://www.nasa.gov/specials/artemis-accords/>
- van Ham, P. 2011. “The European Union’s WMD Strategy and the CFSP: A Critical Analysis.” *Non-proliferation Paper No. 2* 1-16.



CLIMATE CHANGE AND SECURITY: THE CASE FOR BLACK SEA

*Maria-Emanuela MIHAILOV**

*Lucian GRIGORESCU***

*Romel PERA****

Climate change poses significant challenges to global security by exacerbating existing threats and creating new ones. Competition over scarce resources such as food, water, and land will likely increase as extreme weather events and temperature rise will become more frequent. Climate-related migration is expected to increase political tensions, and in some regions, could contribute to instability and conflict. The changing climate will also impact infrastructure, the economy, and public health, which will have far-reaching security implications. The current issue of climate change highlights the spectre of a new source of instability and conflict that can affect national/international peace and security. Although comparative research and projects on the security implications of climate change are expanding, there are still major knowledge gaps. The paper presents the specialized literature on short-term climate change and its possible influence on the Black Sea regional security. It is increasing the potential insecurities that can arise from extreme environmental phenomena. Based on the assessment, the authors outline priorities for future research in the area of interest and cover the necessary adjustments to facilities, materials, and equipment due to progressive weather changes. It also highlights that natural disasters may increase in number or virulence, necessitating the contribution of armed forces to national security.

Keywords: *climate change; security; sea level, Black Sea; environmental assessment; military operations.*

** Eng. Phys. Maria-Emanuela MIHAILOV, PhD, is Senior Researcher within the Maritime Hydrographic Directorate “Comandor Alexandru Cătuneanu”, Constanta, Romania. E-mail: emanuela.mihailov@dhmfn.ro*

***Captain (N), eng., Lucian GRIGORESCU works within the Maritime Hydrographic Directorate “Comandor Alexandru Cătuneanu”, Constanta, Romania. E-mail: lucian.grigorescu22@gmail.com*

Captain (N), eng., Romel PERA works within the Maritime Hydrographic Directorate “Comandor Alexandru Cătuneanu”, Constanta, Romania. E-mail:romel.pera@dhmfn.ro



Introduction

Climate change has a profound effect on global security, and its impact is already being felt in different parts of the world. The consequences for human security are widespread and often devastating as temperatures continue to rise and extreme weather events become more frequent (IPCC, 2021), and food security is among the most impactful aspects of climate change. It can lead to a decline in agricultural productivity and increase the frequency of drought, floods, and heatwaves. This can cause food shortages, disrupt supply chains, and increase food price, making it more difficult for vulnerable populations to have access to nutrition in order to survive. This, in turn, can lead to increased conflict over resources and contribute to the displacement of populations, further exacerbating security challenges. Another impact is its effect on water resources. As temperatures rise, many regions are experiencing decreasing water supplies, which can lead to conflicts over water allocation and access. This can have wide-ranging consequences for agriculture, energy production, and human health, and can exacerbate existing tensions between communities, regions, and even across international borders.

The sea-level rise, as a consequence of climate change, poses a significant threat to coastal communities and infrastructure, resulting in the displacement of populations, damage to critical infrastructure, and increased vulnerability to storm surges and other weather-related hazards. This can have severe implications for the security and stability of communities, particularly in low-lying and densely populated areas.

Besides genetic factors of climate, in general (solar radiation, atmospheric circulation and active surface), the anthropic factor, through its economic activities, has become an essential element in changing climatic parameters on small or large surfaces.

The multiple and different scientific investigations show that a large part of the changes, especially of the climatic calamities registered globally in the last decades, belong to anthropic activities.

There is also a correlation between the intensity, the rhythm, the areas of global environmental mutations and the degree and necessary time for human adaptation. If the changes in the environment happen too quickly, the resulting stress is too great for living things to adapt to the new conditions. As a result, significant changes can be triggered in the environment (migrations, extensions) and in the inhabitants' lives. In the previous period, extreme phenomena were not a concern per se, but only episodic, occasioned by "events" at a much lower frequency, which led to the absence of categorization, hierarchy, or classification concerns in the global system of environment-society evolution.

The issue is quite different today when their frequency has increased significantly, and the affected areas are getting bigger, causing great disasters in the



environment and society, often resulting in the loss of lives. Therefore, contemporary society is going through a new stage today as the rate of extreme natural phenomena has increased. Their frequency and intensity have increased significantly, and the disasters they cause are getting bigger and more complex because the causes are just as complex.

Moreover, the effects are often felt most acutely by those who are already vulnerable, such as women, children, and seniors, which can exacerbate existing inequalities and increase the risk of social and political instability. The consequences on global security are far-reaching and multi-faceted and require a concerted and coordinated response from the international community. Addressing the causes and impacts of climate change will require investment in mitigation and adaptation measures, as well as increased cooperation and coordination at all levels, to ensure that the global community can respond effectively to these challenges and build a more secure and sustainable future.

There is a wide range of research projects that approach the issue of climate change and its security implications. Some of these projects focus on the direct impacts of climate change on security, such as the relationship between droughts and conflict over water resources, or the impact of sea level rise on coastal communities and military infrastructure. Other research projects examine the indirect impacts of climate change, such as the effect of changing climate patterns on food security, public health, and economic stability.

Many interdisciplinary projects examine the intersection of climate change and security, looking at how climate-related events can contribute to political instability and conflict, or how climate policies can impact global security and international relations, including efforts to build resilience in communities, mitigate the effects of extreme weather events, and reduce greenhouse gas emissions to limit global temperature rise. Relevant project examples are:

1. “Climate Change & (In)Security Project (CCIP)”, a collaboration between the University of Oxford and the British Army’s Centre for Historical and Armed Conflict Research (CHACR), explores the insecurities generated by climate change and the methodology of response;

2. “Climate Change, Global Security and Future Operations” (CLIMSEC) through the Multinational Capability Development Campaign (MCDC), aims to increase understanding of the security risks posed by climate change in the Arctic and other regions, which focuses on the intersection of climate change and security, including the potential for conflict over natural resources, the impact of climate-related migration on political stability, and the potential for climate change to amplify existing security risks (C2COE 2023). MCDC-CLIMSEC program is focused on improving the preparedness of military forces to respond to the security challenges posed by climate change (NUPI 2022).



As the world's leading political and military alliance, NATO established in 2022 the “*NATO Climate Change and Security Centre of Excellence (CCASCOE)*”. CCASCOE aims to address the security implications of climate change as a platform between military actors and civilians that will develop, enhance, and share knowledge on climate change security impacts, and develop best practices contributing to NATO's goal (e.g. reducing the climate impact of allies' military activities). At the European level, with the dedicated research programmes (e.g. European Green Deal), the EU endeavours to “become the first climate-neutral continent that provides a roadmap with actions to boost the efficient use of resources by moving to a clean, circular economy and stop climate change, revert biodiversity loss and cut pollution” (EU Climate Action, 2023). *A climate change and security action plan* refers to a strategy or set of policies aimed at addressing the effects of climate change on national security and global stability. The objective of a climate change and security action plan is to ensure that countries are prepared and able to respond to the security challenges posed by a changing climate and to prevent or mitigate conflict arising from these challenges.

1. What is Climate Change?

Climate change refers to long-term shifts in average weather patterns that have come to define Earth's local and global climates, primarily driven by increased levels in the atmosphere of greenhouse gases, caused by human activities such as deforestation, burning of fossil fuels, and agriculture. As a result, the average surface temperature is rising, leading to more frequent and intense weather events, rising sea levels, and other environmental impacts.

A new report from the World Meteorological Organization (WMO) shows that in Europe the average annual surface temperature has been increasing at a faster rate than the global average temperature with a greater increase in the southern part of the continent, mainly in summer and the Arctic region in winter (EU Climate Action, 2023; WMO 2023). As a result, the rainfalls have increased considerably in northern Europe, while droughts have become more frequent in the south of the continent. Thus, the extreme temperatures recorded recently have been related to the observed increase in the frequency of extreme phenomena, in recent decades, due to the effects of climate change.

Climate change and security refer to the interrelated challenges posed by global warming and its impacts on human societies, political stability, and international security. Climate change affects security in various ways, including the displacement of populations, conflicts over natural resources, food and water insecurity, and changes to ecosystems and ocean currents, among others. The security implications of climate change require a comprehensive and coordinated global response to mitigate its causes and address its effects.



Assessing the effects of climate change on military infrastructures and operations, various impacts on military infrastructure were observed, encompassing:

1. Physical damage to bases, ports, and other facilities due to increased frequency and intensity of extreme weather events such as hurricanes, typhoons, and sea-level rise.

2. Impairment of operational readiness due to power outages, communications failures, and other infrastructure failures caused by extreme weather events.

3. Changes to training and testing environments due to alterations in temperature and precipitation patterns can affect the readiness and ability of military personnel to operate in different regions.

4. Increased costs for maintenance, repair, and reconstruction of military infrastructure due to the impacts of climate change.

5. Altered patterns of migration and instability, lead to increased demand for military support in crisis response and disaster relief operations.

6. These effects underscore the importance of considering climate change as a security challenge and of incorporating resilience and adaptation measures into military planning and infrastructure design.

Moreover, there are various impacts on military operations, including:

1. Increased frequency and intensity of extreme weather events, can disrupt military operations and cause damage to equipment and infrastructure.

2. Changes to ecosystems and ocean currents can affect the availability of resources and access to coastal and Arctic regions.

3. Food and water insecurity, can increase the likelihood of conflict and instability in vulnerable regions and create a need for military support in crisis response and disaster relief operations.

4. Displacement of civilian populations can create new security challenges, including cross-border migration and increased competition for resources.

5. Altered patterns of disease and illness, can pose new health risks for military personnel and impact their ability to perform their mission.

6. These effects emphasize the importance of considering climate change a security challenge and integrating adaptation and resilience measures into military planning and operations.

2. Vulnerability of the Black Sea Basin to Climate Change Impacts and Potential Threats to Infrastructure and Military Operations

The European climate has warmed by about 1.5 degrees Celsius in the last century, higher than the global average. As a result, the rainfalls have increased considerably in northern Europe, while droughts have become more frequent in the south of the continent (Allen et al., 2018). Thus, the extreme temperatures recorded



recently have been related to the observed increase in the frequency of extreme phenomena, in recent decades (Seneviratne et al., 2021), because of the effects of climate change.

The vulnerable areas that are subjects to global warming, in Europe, are:

- Southern Europe and the entire Mediterranean basin, which recorded a water deficit due to the increase in temperature and the reduction in the amount of precipitation;
- Mountain areas, especially the Alps, with a problematic situation in terms of water flow regime, as a consequence of the snow melting and the decrease of glacier volume;
- Coastal regions, including the Black Sea, due to rising sea levels and the risk of extreme weather events;
- Densely populated floodable areas, due to the risk of extreme weather events, heavy rainfall and floods, which cause significant damage to built-up areas and infrastructure;
- Key climate-related hazards that pose risks to inland transport infrastructure and operations have been identified as heatwaves, changes in hot and cold temperature extremes, flash flooding, low river flow levels, and riverine and coastal flooding. Example: a) Precipitation - Changes in the mean values; changes in intensity, type and/or frequency of extremes (floods and droughts): inundation, damage and wash-outs of roads and bridges; increased landslides, mudslides; Port infrastructure inundation and/or damage to port facilities; poor manoeuvrability of locks and vessels due to increased water levels and velocity; b) Sea levels/storm surges: problems in vessel navigation and berthing with ports; navigation channel sedimentation; people/business relocation; Increased risks of permanent flooding; erosion of coastal roads; flooding, damage and wash-outs of roads and bridges.

Northern hemispheric high-latitude climate variations, during the last glacial age, are expected to propagate globally, and the Black Sea region has not avoided exposure to climate change. Therefore, actions are needed in the region to deal with the consequences of global warming in the Black Sea towards better governance, sustainable exploitation of resources and security. However, neither the climatic regime nor specific anthropogenic indicators have been quantitatively linked to climate security on the Western Black Sea (effects on civilian or military infrastructure, energy transition, economic cost or health conditions).

The Dobrogea area and the Romania Black Sea coast have been facing hot summers in recent years, caused by hot and dry air flow, from North Africa and the eastern Mediterranean (Nagavciuc et al., 2022). Often these phenomena are amplified by unusual solar activities, in conditions of poor atmospheric circulation, with long periods of calm (no winds or with low-intensity winds). All of these affect the circulation of coastal waters, by completing installations of hypoxia, “red sea” and mortality of biota.



The Black Sea is semi-enclosed, a permanently stratified (by a pycno-halocline) basin, with relatively low salinity and a thin oxygenated surface layer overlying waters dominated by hydrogen sulfide (below 200 m water depth). The general structure of the Black Sea consists of five water masses arranged in nearly horizontal layers: the quasiomogen upper layer, the cold intermediate layer, the permanent pycnocline, the deep water and the bottom boundary layer (benthic layer). A distinct vertical layering is created between the surface waters 0-100 m and the deep (maximum depth of ~2200 m) limiting the vertical exchange and creating a unique chemical and biological environment (Mihailov et al., 2016).

Due to its nonlinear dynamics, the thermohaline circulation is a key component of the climate system and entailed in abrupt climate changes. Mihailov et al. (2016), based on 40 years of climatological data, detected long-term trends of the inter-decadal changes of the thermohaline parameters of the water masses in the North-Western Black Sea shelf and highlighted the fact that for the central part of the shelf the surface water temperature increases by about 0.1 degree Celsius/year between 1971–2010, while at the bottom the average temperatures are practically constant. By contrast, the salinity values decrease by approximately 0.02 PSU/year.

Sea level. Another climate-related impact is the sea-level rise, which may lead to erosion, flooding, coastal inundation and saltwater intrusion. However, for the Mediterranean and Black Sea regions, the sea-level rise has been around 12 cm in the last century, which reaches the average record for the global sea-level rise estimated between 10 and 20 cm. The sea level is rising slowly but constantly (Mihailov et al., 2018), with an estimated rate in the Western Black Sea of approx. 1.37 mm/yr (at Constanta - Romania) and in the Eastern Black Sea side with 6.68mm/yr (Poti – Georgia). Maintaining the current value would lead to an increased average level of about 0.8m in 50 years or 1.7m in the next 100 years. As a conclusion, the western Black Sea coast does not appear especially vulnerable to sea-level rise (Mihailov et al., 2018).

Coastal erosion. The deltaic coastlines of the Black Sea, of the main deltas, represent the most sensitive sectors to erosion and are superposed on the areas with relatively high storm waves and incidence angles (Danube, Kizilirmak, Yesilirmak, Sakarya, Rioni, Enguri, Kodori, Chorokhi), the low-lying areas along the lagoons, firths, coastal barriers and spits and the rocky areas.

Romania has a 245 km coastline along the north-western shore of the Black Sea, in the counterclockwise direction. Similar to any coast in the world, the Romanian coast has been dealing with beach erosion. Since 1975 to the present, the erosion process of the beach has been particularly intense, with the shore being over 600 m in certain sectors. In the southern part of the Romanian Black Sea coast (Portita to Mangalia), the shore becomes typically accumulative, with broad beaches and dunes, the shoreline advancing between 1962 and 2017 by about 4-5 m/year (Spinu



et al., 2017). Sea level rise and the intensification of meteorological and hydrological extreme phenomena because of the climate change and in direct association with the decrease of sedimentary material transported by the Danube, coupled with modifications of sea currents, have resulted in pronounced erosion of the shores, the deltaic and lagoon sectors being the most affected (Spinu et al., 2017).

Teleconnections (evidence linked Atlantic teleconnections to Black Sea hydroclimate). In terms of climatic effects analyzed through the atmospheric index (ATI, formed by averaging the mean surface air temperature in winter, sea surface atmospheric pressure, and evaporation minus precipitation) may be so severe that the resulting anomalous hydrographic events can occur, as the most essential relating local climatic response to large-scale atmospheric motions. The North Atlantic Oscillation (NAO) index is a general indicator of the strength of the westerlies and winter climate over the eastern North Atlantic and Eurasia. A positive winter NAO index is associated with the strong pressure gradient between Azore's high-pressure and Iceland's low-pressure systems, bringing cold and dry air masses with strong westerly winds to southern Europe and the Black Sea region (Hurrell et al., 2003). In a recent study, Ionita et al. (2015) emphasized the combined effect of different teleconnection patterns (e.g. NAO, Arctic Oscillation - AO, East Atlantic - EA) on the seasonal dryness/wetness variability at the European scale.

Divergence phenomena. On the western coast of the Black Sea, the onset of the divergence phenomenon is due to western, southwestern and southeastern winds, which generate an Ekman transport with an offshore component. The upwelling brings toward the surface the waters from below, with low temperature and high salinity. This phenomenon occurs in early summer when the thermocline is shallow and the requested energy can be provided by wind. The upwelled waters due to their rich nutrient content, subsequent phytoplankton blooms can occur. Although coastal upwelling is not a permanent feature of the region, several such events are observed almost every year. Of all the situations analyzed, we observed that the significant decreases in the sea surface temperature occurred nearshore (Mihailov et al., 2012, 2013).

Based on the long-term data analysis (from 2000 to 2018), of the main physical parameters of seawater, Mihailov et al. (2012) demonstrated that 31 divergence processes were detected on the North-Western Black Sea shelf based on daily in-situ data, with significant predominance in late spring (May) and early summer (June). Also, the Romanian Black Sea coast is an intense touristic area, the upwelling consequences are unpleasant for tourists due to strong differences between air and sea temperatures, the „red tide” in the bathing waters and the presence of dead marine organisms because of the severe hypoxia following intense phytoplankton blooms. In meteorology, the convergent and divergent phenomena are important due to their effects, such as difficulties in sea surface temperature prognosis, sea fog



appearance near shore, as well as breeze intensification due to the strong horizontal thermal gradient (Mihailov et al., 2012).

Eutrophication and hypoxia are responsible for the degradation of coastal ecosystems, but they can also negatively impact open-sea populations. The strong vertical gradients of the oxygen concentration in the coastal waters are a combined result of physical processes and biological activity, influenced by water temperature and salinity, nutrient concentration, circulation and mixing. The strong thermohaline stratification of the shelf waters during the summer limits the vertical mixing, leading to the occurrence and intensification of hypoxic, and even anoxic phenomena (Mihailov et al., 2013). The hypoxia recorded in the 2010 summer in the central and southern part of the Romanian coast is a negative consequence of the upwelling phenomenon but also the high air temperature values, the limited deep water mixing led to the high values of seawater temperature (26-28 degrees Celsius) favouring the strong algal bloom (high Chl-a concentration of 16.93µg/L in June). In general, the process of raising deep waters to the surface has a positive effect on the marine ecosystem through the supply of nutrients necessary for the development of living marine organisms (Mihailov et al., 2013). The hypoxia phenomenon manifested a sharp decrease in the oxygen concentration in deep waters. As an effect of low oxygen concentration in the littoral Black Sea waters significant mortality of species, such as mullets, dragons, scorpions, large flatfish, shrimps and molluscs, was recorded (Mihailov et al., 2013).

Sea ice. Black Sea freezing in winter is observed regularly in its northern parts and near the Kerch Strait, due to the relatively shallow north-western shelf part and the river inflow of the three major European rivers Danube, Dnieper, and Dniester, as well as Don through the Azov Sea, carrying a large amount of fresh water to this part of the Black Sea (Matov et al. 2022, 974). The depression of the freezing point varies linearly with salinity and according to the International Practical Temperature Scale of 1968 (IPTS-68) standards calculations (Barber 1969, 929–931), the freezing point of the seawater is -0.819°C for the 15 PSU mean value of the salinity at Constanta. Since 1929, moderate freezing has been observed in the Black Sea, but February 2012 was extremely cold and the Black Sea ice reached Constanta, Romania (Mihailov M.E., 2017).

3. Climatic Hazards, Impact and Risks

As a result of the temperature increases that can perturb the hydrological cycle, the analysed region is very likely to experience a wide range of impacts in response to climate change. Climatic hazard phenomenon can be observed on the western Black Sea shelf by an increase in droughts or flood severity with a negative impact on forest areas changing the areal of various tree species, and moving the limits of vegetation zones (Lupu et al. 2010).



Drought and water scarcity in Romania - causes:

- an increase of the yearly average temperature by 0.3°C;
- increase in the number of tropical days (>30°C)
- decrease in the number of cold days (<0°C);
- a rapid increase in the phenomena after the year 2000;
- a decrease in precipitation (mainly in the southern part of the country);
- a decrease in runoff.

Impact on the water regime:

- reduced inflows to water reservoirs;
- reduced streamflows in major catchments;
- reduced recharge of groundwater;
- high frequency and duration of drying up of rivers having a catchment area of less than 500 km².

Effects of water scarcity and droughts:

- threatened water supplies for human settlements and industries;
- reduced water availability for agriculture;
- reduced hydropower production (more use of coal and gas power);
- disturbance of inland navigation;
- increased risk of algal blooms;
- changes in salt loads in streams (both increases and decreases possible);
- impact on river flora and fauna.

Sea-level rise or extreme events intensification affects the coastal infrastructure for the long-term (as harbours - civilian and military, lighthouses - necessary for navigation security, etc.). On the Romanian Black Sea coast, the extreme events are sea ice (rare events), strong winds - storms (mainly in the cold season due to Arctic influence), Saharan dust, etc.

According to ICPDR (ICPDR, 2023) scenarios concerning water scarcity and drought in Romania will determine an increase in average temperature (0.5-1.5°C in the medium-term and 2.0-5.0°C), prolonged droughts in the south and south-eastern part of the country, and reduction of the water inflow by 20%).

In the literature, there are many classifications of climatic hazards and risks according to different criteria as follows: by the way of manifestation, by the degree of vulnerability, by triggering velocities and occupied area, by duration, by the number of climatic elements that generate the risk state, by the way of manifestation, according to the climatic zones, according to the season, according to the damages and the victims produced, etc.

Impact on Economy and Security. By its location in the geographic area of the Black Sea, Romania has some important comparative advantages derived from geostrategic and geo-economic dimensions: a) significant energy resources, b) a major transport corridor for Eurasian energy resources to the European consumers



(the Caspian Sea - Black Sea - Mediterranean Sea), and c) the major factor for EU and Romanian energy security.

Climate-disrupting critical waterways and transportation routes (infrastructural security) - as harbours - civilian and military, lighthouses - necessary for navigation security, etc. due to sea level rise, coastal erosion, extreme storm or high-wave events. Romania is still the largest natural gas producer in Central and Eastern Europe, according to Eurostat (2019) and has substantial renewable potential in hydropower, solar, and wind energy.

Climate change can also lead to a reduction in hydroelectric power production by reducing water resources. In addition, decreased water resources also affect the operation of nuclear power plant cooling systems. Problems could arise in the energy sector, especially in the production of energy in hydropower plants, taking into account that southern and south-eastern Europe and, implicitly, Romania are much more exposed to the risk of drought. The increase in winter temperatures will lead to a decrease of 6% - 8% of the energy demand for heating in 2021-2050. In contrast, by the year 2030, summer energy consumption could increase by up to 28% because of high temperatures.

National And Military Security. Within migration studies focusing on the Black Sea basin, predominant attention is given to key factors related to migration, primarily centring on educational and employment opportunities, as well as freedom of expression. However, there is a notable lack of emphasis on climate change-related factors such as environmental degradation and the associated poverty.

Romania is the most important and advanced outpost of Euro-Atlantic structures (NATO and EU) to the East (Turkey - wider and more populous – being just a NATO member and Bulgaria, which is part of both structures being two times lower as surface and three times smaller as population). In the short and medium term, the NW Black Sea shelf does not seem to become afflicted with climate-induced conflicts. For the continental and coastal Romanian region, humanitarian interventions and stabilization missions consist of military interventions for civilian support in extreme events (flooding, ice-breaking or snow removal actions, and protecting sensitive areas). However, despite several crises, the riparians have not engaged in militarized conflict on water scarcity.

Perhaps the most direct and obvious significance of climate change for the military is its impact on infrastructure. The climate-related risks to military infrastructure and force training and extreme weather events can also increase the potential for conflict and migration within and beyond NATO's immediate vicinity (Aldea et al. 2022, 31-36). Low-lying military installations such as naval bases are particularly susceptible to rising sea levels and intense weather events. Not only coastal facilities may be affected. Extreme heat may impact training, and changes to ocean buoyancy (changes in the seawater density) by External forcing as heat



fluxes (heating and cooling) and freshwater fluxes (evaporation and precipitation plus runoff from land).

The Romanian Black Sea coast is vulnerable to:

– coastal erosion or new sand deposits (northern area, e.g. Sakhalin Island and Musura Bay -Romanian-Ukrainian border). The status of legal maritime boundaries based on baseline territorial features is entirely uncertain if such features are submerged due to sea-level rise or are declared uninhabitable under current legal definitions - as mentioned in the UN Convention on the Law of the Sea (UNCLOS). Rising seas could have an enormous impact on national waters and the exclusive economic zones (EEZ) over which a coastal or island state has special rights (e.g., regarding the exploration and use of marine resources, including energy and mineral deposits);

– sea-level rise or extreme events intensification affects the coastal infrastructure for the long-term (as harbours – civilian and military, lighthouses - necessary for navigation security, etc.). On the Romanian Black Sea coast, the extreme events are sea ice (rare events), strong winds - storms (mainly in the cold season due to Arctic influence), Saharan dust, etc.

For the continental and coastal Romanian region, humanitarian interventions and stabilization missions consist of military interventions for civilian support in extreme events (flooding, ice-breaking or snow removal actions, and protecting sensitive areas).

4. Climate Implications and Adaptations on Military Operations, Security and Defence

In the forthcoming years, the Armed Forces must consider appropriate adaptation strategies to confront operations within challenging climatic settings. Imperative measures involve adapting facilities and military equipment, minimizing emissions, integrating climate considerations into military planning to counter threats to human security and natural disasters, and actively participating in conflict prevention efforts. The extreme cold or hot environments we have previously dealt with will impact the equipment's performance, disrupting its functionality and leading to atypical and premature degradation and deterioration. We are well aware of the impact that both low and high temperatures can have on gunpowders and ammunition, leading to challenges in their preservation and handling. These temperature variations also influence their range and performance, factors that must be considered when employing them in automatic systems and when planning both fires and logistics.

Focusing on their effects on systems, it is important to note that extreme temperatures directly influence the operational capabilities of vehicles, particularly those exposed to the elements for extended periods. Ensuring meticulous preventive



maintenance becomes crucial to mitigate temperature-induced effects on all vehicle components. Snow-covered terrain and low temperatures necessitate special considerations for the proper operation and maintenance of various types of vehicles. In such conditions, optimal vehicle functionality, especially for tracked ones, demands accurate preemptive maintenance. This underscores the importance of highly trained crews who can perform these tasks effectively, even though they may require increased time and effort due to the challenging conditions.

To ensure self-sufficient logistical operations for the successful execution of their duties, operational bases located in challenging environments must possess a comprehensive range of capabilities. These bases need to establish robust command and control structures, healthcare facilities capable of stabilizing casualties, and efficient transportation systems to cater to initial requirements in terms of ammunition, fuel, sustenance, and water. These bases must possess self-reliant water production systems, including potable water treatment plants, as well as a stable energy supply. Moreover, they must seamlessly integrate all the tactical capacities essential for fulfilling their mission objectives. In addition to these requisites, operational bases positioned in challenging areas must be primed to adapt their infrastructural facilities to withstand the impacts of climate change, particularly in the face of extreme weather conditions. When contending with elevated temperatures, the incorporation of effective cooling systems becomes indispensable. These systems serve not only the critical purpose of safeguarding personnel from heightened physiological strain due to heat exposure but also ensure the continued functionality of communication, information systems, and other electronic equipment that are central to the base's operational effectiveness.

Climate change introduces noteworthy hurdles to military logistics, necessitating the acquisition of capabilities that can effectively withstand the impacts of dynamic and extreme climatic conditions. In such an environment, the intricacies linked to preserving materials subjected to higher-than-normal levels of wear, coupled with an upsurge in the demand for vital resources, present substantial challenges for logistical procedures. Unfavourable weather conditions, whether characterized by harsh heat or extreme cold, can significantly curtail the available time window for conducting logistics operations. This alteration to the logistical timeline profoundly influences the planning process. In the domain of maintenance, the concept of predictive maintenance emerges as a critical resource. It stands as an indispensable strategy, offering a means to counter the exigencies brought forth by the logistical demands of military forces in the face of climate change effects.

Climatic conditions will not only disrupt the operational aspects but will also exert a substantial influence on the intricate supply chains necessary to sustain military operations, thereby imposing constraints on equipment storage and leading to an escalation in associated expenses. The climatic variations are likely to mandate an



augmentation in the allocation of specific resources critical for ensuring the seamless operation of military units. The provisioning of both water and fuel will emerge as paramount considerations in the blueprinting of logistical support, yet they are not immune to challenges posed by fluctuating temperatures. In environments marked by sub-zero temperatures, particular emphasis must be placed on water storage and distribution systems to avert freezing-related issues. Frequently, the adverse effects of inclement weather will deteriorate access routes, possibly necessitating the deployment of assets such as helicopters or even boats in flood-prone areas to facilitate the transportation of supplies. These measures underscore the adaptive nature of logistical strategies, compelling the integration of diverse transportation methods to ensure sustained support in challenging environments.

Adaptability affects Army and Navy differently. The impact of global warming is progressively reshaping how the Navy carries out its missions. This influence is particularly significant within the maritime domain, where the inherent risks are already posing a substantial and noteworthy challenge. However, the weather anomalies and their consequences will not only have an impact on the tasks of the Navy but also its assets, both units and naval bases, will be affected by it.

The elements that influence climate change, the resulting impacts, the assumptions made, and the constraints imposed on military operations all prominently feature in both proactive and crisis-responsive planning. Irrespective of circumstances, the foundational premise underlying operational planning remains constant – that military operations are indispensable for countering threats and vulnerabilities, whether originating from opposing forces or external factors like weather disturbances. Within the operational planning framework, particularly at the operational level, the process initiates with a comprehensive evaluation of the prevailing situation. This evaluation is founded on a strategic analysis that serves to establish a lucid understanding of the “what” that needs to be achieved, the prevailing “conditions” influencing the context, and the applicable “limitations”. Grounded in this comprehension, the focus shifts toward formulating the “how” of operations, which entails devising an integrated operational design. This operational design serves as the bedrock for the subsequent refinement of the operational concept, as well as the meticulous development of a comprehensive and detailed operational plan.

Conclusions

Climate change can affect security in several ways. It can lead to water and food scarcity, which can cause conflicts over resources. Changes in temperature and precipitation patterns can also increase the frequency and intensity of natural disasters, causing mass displacement of populations and putting a strain on societies and economies. Climate change can also impact global health, leading to the spread



of diseases and pandemics, as well as exacerbating existing humanitarian crises. Furthermore, it can alter ecosystems, leading to the loss of biodiversity and the degradation of key ecosystems that support human well-being. These impacts can increase the risk of conflict, instability, and violence, both within and between countries, thereby affecting national and international security.

According to the European Commission, the Black Sea region is a distinct area, bringing together ten states: 6 riparian states - Bulgaria, Romania, Ukraine, Russian Federation, Georgia and Turkey -, and 4 states - Armenia, Azerbaijan, the Republic of Moldova and Greece, whose history and proximity to the Black Sea basin recommend them as relevant actors in the area. The Black Sea basin is the second largest source of oil and natural gas after the Persian Gulf, with substantial renewable energy potential (hydro, solar and wind energy).

The Black Sea region is particularly vulnerable to the impacts of climate change, and the effects are already being felt in various ways. Interconnected key issues were identified (generally for all regions): water, food, health, economic, infrastructural, national and military security. Here are a few ways in which climate change affects the security of the Black Sea region:

1. **Water Scarcity:** The Black Sea region is facing a growing water scarcity problem, with increasing demand for water from agriculture, industry, and population growth. This is exacerbating existing tensions over water resources and increasing the risk of conflict between states and communities in the region.

2. **Agricultural Impacts:** The Black Sea region is one of Europe's major agricultural areas, and climate change is having a significant impact on crop yields and productivity. This reduces food security and increases the risk of food shortages, which can contribute to political instability and conflict.

3. **Coastal Erosion and Flooding:** The Black Sea region is also experiencing rising sea levels and increased frequency of storm surges and flooding, which are affecting coastal communities and infrastructure. This is leading to the displacement of populations, damage to critical infrastructure, and increased vulnerability to natural hazards.

4. **Energy Supply and Demand:** Climate change is affecting the energy supply and demand balance in the Black Sea region, with increasing demand for energy to meet the needs of a growing population and a changing climate. This is exacerbating existing energy security challenges and increasing the risk of energy-related conflicts.

5. **Human Security:** Climate change is having a profound effect on human security in the Black Sea region, with increased frequency of natural disasters, displacement of populations, and reduced access to resources. This is exacerbating existing social and political tensions and increasing the risk of conflict.

To progress toward a Navy that remains prepared to confront novel challenges without compromising its efficacy in addressing existing ones, it becomes imperative



to address the following fundamental inquiries: How can the Navy actively contribute to diminishing its ecological impact without compromising its operational capabilities? What requisites must the Navy fulfil to effectively operate in regions marked by climatic conditions previously unencountered in its operational contexts?

The crux of the matter lies in identifying the key factors that enable the alignment of the Navy's equipment, systems, and personnel to effectively function in adverse weather scenarios, all while preventing the exacerbation of the repercussions of global warming. It is not incidental that the Navy plays a role in the generation of carbon dioxide (CO₂) and other greenhouse gases. The Navy must persist in the advancement of technologies that, without impeding its functionality, systematically reduce its polluting impact, ultimately striving for its complete elimination. To accomplish this, meticulous consideration is essential, evaluating how our naval forces can achieve equilibrium among energy sources, materials, and equipment that are less reliant on carbon. All the while, this transformation must maintain a high level of interoperability, preserve operational effectiveness, and uphold the capacity for rapid response.

In conclusion, the impacts of climate change on the Black Sea region are complex and far-reaching and require a comprehensive and coordinated response from the international community. Addressing the causes and impacts of climate change will require investment in mitigation and adaptation measures, as well as increased cooperation and coordination between states, communities, and other stakeholders in the region, to ensure that the region is better prepared for the challenges of a changing climate.

Disclaimer:

This study was financed from the Sectorial Research-Development Plan of the Romanian Ministry of National Defence, PSCD 2021 – 2024 Project (097 / 2021, 092 / 2022, 093/2023): “Development of an integrated monitoring system to increase the quality of hydro-oceanographic data in the area of responsibility of the Romanian Naval Forces”.

BIBLIOGRAPHY:

Allen, M.R., O.P. Dube, W. Solecki, F. Aragón-Durand, W. Cramer, S. Humphreys, M. Kainuma, J. Kala, N. Mahowald, Y. Mulugetta, R. Perez, M. Wairiu, and K. Zickfeld: “Framing and Context. In: Global Warming of 1.5°C”. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty, Cambridge UK and New York USA, Cambridge University Press, pp. 49-92, 2018. (online: https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SR15_Chapter_1_HR.pdf). Accessed 02 November 2023.



- Aldea, Cezar-Cristian, 2022. “New threats and vulnerabilities regarding national security in the context of the conflict in Ukraine” *Buletinul Universității Naționale de Apărare „Carol I”* 31-36.
- Barber, C., 1969. “International Practical Temperature Scale of 1968.” *Nature* 222: 929-931.
- C2COE, 2023. <https://c2coe.org/2023/02/14/multi-domain-multinational-understanding-mcdc/>. Accessed July, 2023.
- EU Climate Action, 2023. https://climate.ec.europa.eu/eu-action/european-green-deal_en. Accessed June, 2023
- European Environmental Agency (EEA), Climate change impacts in Europe, 2020 (online: <https://www.eea.europa.eu/highlights/why-does-europe-need-to-climatechangeimpactineurope.pdf/view>). Accessed May - June, 2023.
- EUROSTAT, 2019. <https://ec.europa.eu/eurostat/documents/3217494/10165279/KS-DK-19-001-EN-N.pdf/76651a29-b817-eed4-f9f2-92bf692e1ed9>, pp. 13. Accessed 02 November 2023.
- Hurrell, J.W., Kushnir, Y., Ottersen, G., and Visbeck, M., 2003. “An overview of the North Atlantic Oscillation”. In: *The North Atlantic Oscillation: Climatic Significance and Environmental Impact*, Geophysical Monograph 134, Edited by J.W. Hurrell, Y. Kushnir, G. Ottersen, M. Visbeck, 1-36. American Geophysical Union, Washington DC.
- ICPDR, 2023. The International Commission for the Protection of the Danube River (. www.icpdr.org. Accessed July, 2023
- Ionita, M., Boroneant, C., and Chelcea, S., 2015. “Seasonal modes of dryness and wetness variability over Europe and their connections with large scale atmospheric circulation and global sea surface temperature.” *Climate Dynamics*, online first DOI: 10.1007/s00382-015-2508-2.
- IPCC, 2021. “Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change”. Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.). *Cambridge University Press*, Cambridge, United Kingdom and New York, NY, USA, 2391 pp. doi:10.1017/9781009157896.
- Lupu, Andreea Bianca, Florin Catalin Ionescu, Iacob Borza, 2010. “The phenomenon of drought and it’s effects within Romania.” *Research Journal of Agricultural Science* 42 (4).
- Matov, M., Peneva E., Galabov V., 2022. “Black Sea Freezing and Relation to the Winter Conditions in 2006–2021.” *Atmosphere* 13(6):974. <https://doi.org/10.3390/atmos13060974>



- Mihailov, Maria – Emanuela, Tomescu – Chivu, Maria – Ionela, and Viorica Dima, “Black Sea Water Dynamics On The Romanian Littoral – Case Study: The Upwelling Phenomena”, *Romanian Reports in Physics* 64(1), 232–245, 2012.
- Mihailov, M.E., Buga, L., Malciu, V., Sarbu, G., Oros, A., Lazar, L., and Stefan S, “Characteristics of upwelling, algae bloom and hypoxia events on the Western Black Sea in 2010”, *Fresenius Environmental Bulletin* 22(10), 2013.
- Mihailov, Maria-Emanuela, Luminița Buga, Alina-Daiana Spînu, Lucian Dumitrache, Laurențiu-Florin Constantinoiu, and Maria-Ionela Tomescu-Chivu, 2018. “Interconnection between Winds and Sea Level in the Western Black Sea Based on 10 Years Data Analysis from the Climate Change Perspective.”, *Cercetări Marine* 48, pp. 171-178.
- Mihailov, Maria-Emanuela, Sabina Ștefan, Vasile Diaconu, and Luminița Lazar, 2016. “Longterm variability of the water mass structure on the Romanian Black Sea shelf.” *Romanian Reports in Physics* 68 (1):377–392.
- Mihailov, Maria-Emanuela, “Dinamica maselor de apă în nord-vestul Mării Negre”, Constanța, Editura Ex Ponto, 2017 (online: https://www.researchgate.net/publication/315677115_Dinamica_maselor_de_apa_in_nord_-_vestul_Marii_Negre). Accessed: 02 November 2023.
- Nagavciuc, Viorica, Scholz, Patrick, and Monica Ionita, “Hotspots for warm and dry summers in Romania”, *Nat. Hazards Earth Syst. Sci.* 22, 1347–1369, 2022
- NUPI, 2022. CLIMate Change, global SECurity and future operations (CLIMSEC) – a Multinational Capability Development Campaign (MCDC) project (CLIMSEC), <https://www.nupi.no/en/projects-centers/climate-change-global-security-and-future-operations-climsec-a-mulltinational-capability-development-campaign-mcdc-project> . Accessed May, 2023.
- Seneviratne, S.I., X. Zhang, M. Adnan, W. Badi, C. Dereczynski, A. Di Luca, S. Ghosh, I. Iskandar, J. Kossin, S. Lewis, F. Otto, I. Pinto, M. Satoh, S.M. Vicente-Serrano, M. Wehner, and B. Zhou, Weather and Climate Extreme Events in a Changing Climate. In *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge UK and New York USA, Cambridge University Press, pp. 1513–1766, 2021. (online: https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Chapter11.pdf). Accessed 02 November 2023.
- Spinu, Alina, Diaconeasa, Dan, Petrisoiaia, Silica, Buga, Luminita, Mihailov, Emanuela, Timofte, Florin, and George Sarbu, “Long and short term evolution of tourist beaches of the Romanian littoral. Mamaia Bay case study”, *Journal of Environmental Protection and Ecology* 18(2), 590–596, 2017.
- WMO, 2023. World Meteorological Organization (WMO) State of the Global Climate 2022, WMO-No. 1316, 2023 (https://library.wmo.int/doc_num.php?explnum_id=11593).



VULNERABILITIES TRANPOSED BY CLIMATE CHANGE EFFECTS IN ECOLOGICAL RISKS AND THREATS TO THE NATIONAL SECURITY

*Mirela ATANASIU, PhD**

Climate changes effects determine major transformations of interactions between socio-economic and natural environment, phenomena that directly affect the overall security (international, national, regional) systems. In the security equation, vulnerabilities in different sectors expose systems to threats and associated risks and their existence represents gaps and malfunctions in assuring systems' overall resilience.

In this paper, we start from the research hypothesis that vulnerabilities are a constitutive element of the climate security equation seen as a logical construction of a causal nature, respectively: the effects of climate changes are the source of ecological threats and associated risks facilitated or multiplied by exploited vulnerabilities whose presence/absence gives the measure of the impact over the respective security system. In this regard, our topic is focused on a narrower subject, namely the identification of vulnerabilities that have the potential to be exploited in generating ecological threats and associated risks against Romanian national security. In order to achieve our goal, concepts like “environmental security”, “climate security”, “ecology”, “climate change”, “vulnerability”, “ecological risks and threats”, and “resilience” will be approached in the capacity of their interdisciplinary entanglement between security and ecology.

Keywords: *vulnerability; impact; environmental insecurity; national resilience; climate change.*

** Mirela ATANASIU, PhD, is Senior Researcher within the Center for Defence and Security Strategic Studies, within the “Carol I” National Defence University, Bucharest, Romania, and Associate Researcher at the Doctoral School of Safety and Security Sciences, Obuda University, Budapest, Hungary. Email: atanasiu.mirela@yahoo.com*



Introduction

Climate change represents “a long-term shift in the average weather conditions of a region, such as its typical temperature, rainfall, and windiness” (Government of Canada 2023). The phenomenon has been long lasting present on Earth as “in the last 800,000 years, there have been eight cycles of ice ages and warmer periods, with the end of the last ice age about 11,700 years ago marking the beginning of the modern climate era — and of human civilization” (NASA 2023). However, what has changed in the present that triggered the international agenda focus on the climate change aspect?

The answer is quickly to be found in the binomial relation between their increasing damaging effects in the world on the socio-economic and ecological environments and their intensification on an accelerating rate, particularly triggered by wide-scale polluting post-industrial human activities impacting all the security sectors (political, military, economic, societal, environmental) as identified in the Copenhagen School assumption (Buzan, Waever și de Wilde 2011, 171), particularly in more exposed states with low level of resilience and many vulnerabilities. Therefore, the worrying impact of climate changes in terms of security has garnered increased importance.

When it comes to the relation between national security and climate change effects, in a traditional perception wherein security refers to overall military aspect, this can be seen in terms of “threats associated largely with conflict or border integrity arising from climate change and means of providing security focus on adaptation to manifestations of threat” (Busby 2008, 468-504). From this perspective, *environmental security* “has been described as a bundle of issues which involves the role that the environment and natural resources can play in peace and security, including environmental causes and drivers of conflict, environmental impacts of conflict, environmental recovery, and post-conflict peacebuilding” (UN Environment 2018, 3). However, the relation between climate change and security means more than that, as climate change effects are increasingly affecting all aspects of human-centred ecosystem: political, social, economic, etc. Also, climate change has become a significant risk multiplier, as it may contribute to aggravating already existent crisis factors (such as deepening of economic inequalities, social fragmentation, and strong political oppression) and vulnerabilities in ecosystems (lack of proper critical infrastructures, poor governance, finances’ mismanagement, etc.), therefore it constitutes a new security challenge that needs to be addressed with adequate resources.

Regarding the research methodology in this paper, in order to achieve its objective to identify the vulnerabilities liable to be exploited by the effects of climate change in the sense of generating climate insecurity, respectively ecological risks and threats to national security, the following will be addressed: the concept



of vulnerabilities as an element in the security equation; main sources and effects of climate change; main risks and threats of the effects of climate change in Romania as identified in national documents. This approach comes from the identification of vulnerabilities as a constitutive element of the security equation, following the established model addressed in a previous study carried out by the researchers of the Centre for Defence and Security Strategic Studies, consisting of the logical construction of a causal nature, respectively *source - threat - target vulnerability - impact* (Cîrciumaru și Petrescu 2022, 9). Afterwards, on this knowledge background some vulnerabilities will be identified in different sectors of security exploited by the effects of climate change that result in situations of national insecurity, some of them being recognized as such during the Climate Change Summit 2023, held at the Bucharest National Opera, on October 19-20, 2023, an event attended by a number of important specialists in climate change topic.

1. Conceptualizing Vulnerabilities in the Climate Security Equation

Security developed into a multidimensional concept in the Copenhagen School perception represents not only the military aspect related to the use of hard power but also engages other sectors such as the political, economic, societal, but also the environmental sector.

The connection between the environment and security is so complex that it requires a new way of thinking. Today, national security is intertwined with vulnerabilities associated with climate change, particularly with the unsustainable management of available resources that mostly have consequences in the ecological sector.

In regards of the ecological dimension of risks and threats, serious phenomena associated with the natural environment or its degradation can endanger national security, examples being natural or industrial catastrophes with the potential of significantly disrupt the economic-social climate. Thus, while the “Ecology is the study of the relationships between living organisms, including humans, and their physical environment that seeks to understand the vital connections between plants and animals and the world around them” (The Ecological Society of America 2023), with the awareness of climate change effects, a new field of research has been developed, namely “climate-change ecology” seen as “the study of the effects of anthropogenic climate change on any aspect of ecology” (Nature 2023). Furthermore, for the scope of this research, we consider ecological risks and threats to be related to natural environment challenges that are able to harm biodiversity and human existence.

Environmental security is strongly related to ecology, but it means far more than that, as it represents “the protection of the natural environment and the vital interests of citizens, society, and the state from internal and external impacts, adverse



processes and development trends that threaten human health, biodiversity and the sustainable functioning of ecosystems and the survival of mankind” (The Security Council of the Russian Federation 1996, 55), thus it has a more societal approach. Still, the most important challenge included in the environmental dimension of security is climate change.

Since the 1980s, the idea that climate change might pose a threat to security has become prominent, and concomitantly, environmental issues more broadly have featured significantly in debates about redefining security (McDonald 2015, 1). Lately, the environmental security have gained in importance in terms of security studies as it has become obvious that climate change and its effects, including ecological degradation, biodiversity decline, deforestation, desertification, extreme weather conditions, water and food shortages, air pollution and natural disasters are fuelling conflicts or crises and already threaten security, stability and peace in local, regional and international level.

Recently, the concept of *climate security* has been used more and more in the analysis of the impact of climate change on security. The Centre for Climate and Security (Washington) proposes a coherent conceptual framework based on four interrelated factors: *climate change* (increased greenhouse gas emissions; global temperature rise; sea level rise); *natural disasters* (events related climate: floods, tropical storms, landslides, heat waves, drought, forest floods), *human systems* (risk factors: vulnerabilities, such as lack of adaptive capacity and resilience; exposed elements and socio-economic and institutional sensitivity) and, last but not least, *the determinants of insecurity* which, in turn, affect climate change (adverse impacts: mortality and morbidity, environmental degradation, infrastructure and living environment, health problems, inequality, availability and quality of resources, social tensions, migration and internal dislocations of the population, unstable institutions, etc.) (The Center for Climate and Security 2021, 20). These factors are reflected in all levels of security: international, national or regional, however, in our paper we focus on national aspects related to climate security, particularly those of ecological nature.

Vulnerability is part of the security concept equation strongly connected with threats and their associated risks, having an important role in the level of impact that a crisis or conflict can have over a certain sector of human life. In terms of climate security, “vulnerability is a factor of climate risk” (Climate Adapt 2023). Thus, environmental vulnerability refers to the structure and function of ecosystems composed of humans, their socio-economic life and natural environment in its biodiversity. In these terms, the relation between vulnerability and climate change is seen as “the degree to which a system is susceptible to, and unable to cope with, adverse effects of climate change, including climate variability and extremes” (Intergovernmental Panel on Climate Change 2007, 6), thus “vulnerability is a function of the character, magnitude, and rate of climate change and variation to

which a system is exposed, the sensitivity and adaptive capacity of that system” (Intergovernmental Panel on Climate Change 2007, 6). Therefore, in the climate security equation, vulnerability is exploited by a threat that once materialized determines the risk (the potential for loss) and is reflected in the level of impact over a certain ecosystem or security sector.

2. Main Sources and Effects of Climate Changes

The greenhouse effect is a positive factor for Earth’s capacity to maintain life on its surface because it captures Sun’s energy at its surface. The greenhouse effect is damaging when extra greenhouse gases in the atmosphere trap too much sunlight, which causes more global warming than necessary to maintain the bio-balance¹ on Earth.

Climate change was a perpetual phenomenon in Earth’s history. Actually, there are specialists that discovered that “three periodic motions in Earth’s orbit, known as Milankovitch cycles, contribute a predictable amount of variations to Earth’s climate over time frames of tens of thousands to hundreds and thousands of years” (NASA 2020). But with the industrial era, human activities such as burning fossil fuels, including coal and oil have increased greenhouse gas concentrations in our atmosphere that triggered the growth of global temperature at an unprecedented pace (Figure no.1).

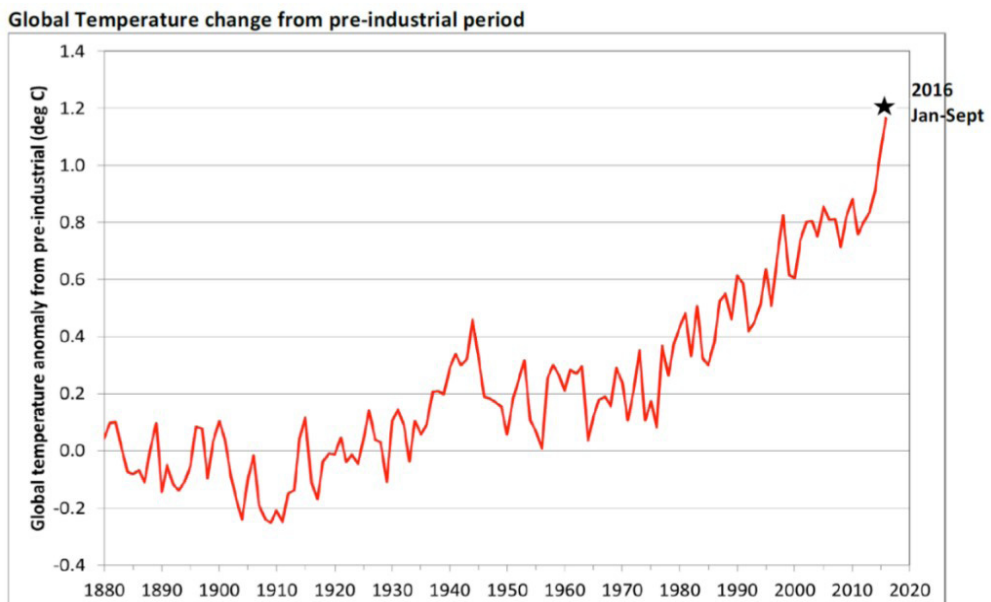


Figure no. 1: Global temperature change from pre-industrial period (World Meteorological Organization 2020)

¹ The balance between nature and humans.



Nowadays, climate change is mainly caused by greenhouse gas emissions resulting from human activities based on the burning of fossil fuels (energy system, industry, agriculture and forestry, etc.), but also by deforestation and animal husbandry. Also, along with unsustainable energy and improper land use, societies' lifestyles in terms of consumption and production patterns in global economies "highly contribute to increasing the level of gas emissions with greenhouse effect (carbon dioxide, methane, nitrogen oxide, and fluorinated gases) generating widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere" (Intergovernmental Panel on Climate Change 2023, 42).

Climate changes effects are manifested in global warming reflected mainly in the increase in the average temperature of the air, soil and waters, but also in the rise in the level of the seas and oceans as a result of the melting of the glaciers and manifestation of intense extreme phenomena and, often, unforeseen (heavy precipitation - floods; light precipitation - drought; storms; cyclones, etc.).

3. Part of Ecological Threats and Risks Associated to Climate Change Effects in Romania

Climate changes give birth to a series of threats and associated risks to national security, part of them of ecological nature. The Ecological Threat Register produced by the Institute for Economics & Peace analyses in its reports such threats and risks, from population growth, water stress, food insecurity, droughts, floods, cyclones, to rising temperatures and sea levels. The results showed that "141 countries are exposed to at least one ecological threat by 2050" (Institute for Economics & Peace 2020, 2). Moreover, the founder and Executive Chairman of Institute for Economics and Peace stressed out that "ecological threats and climate changes pose serious challenges to global peacefulness, as over the next 30 years lack of access to food and water will only increase without urgent global cooperation and in the absence of action civil unrest, riots and conflict will most likely increase. COVID-19 is already exposing gaps in the global food chain" (ReliefWEb 2020).

By studying strategic documents and reports one may acknowledge that as concerns Romania main threats and associated risks triggered by the effects of climate changes are: **a) changes in biodiversity** (Ministry of Environment and Climate Change 2014); **b) food insecurity and the depletion of fresh water sources**, and **c) multiplication of health risk factors**, all of these three elements affecting the quality of life and triggering internal migration acceleration.

In the following, these elements are discussed.

a) Research studies show that "the main anthropogenic factors that have, in recent decades, induced the change of ecological composition and structure and of the yield and support capacity of the Romanian biodiversity were identified in the



objectives of socio-economic development strategies and in the means chosen to implement them during 1950-1989” (Ministry of Environment and Climate Change 2014, 15), thus extensive agriculture generated imbalances and discontinuities that have only partly been corrected by the implementation of the environment policies.

Climate change threatens Romanian biodiversity by: modifications produced to the species behaviour, as a result of the stress induced on their adaptation capacity; modification of the habitats distribution and composition; increase of the number of exotic species and of their potential to become invasive; modification of the distribution of the ecosystems specific to wet areas, with the possible limitation up to their extinction; changes in the freshwater and marine aquatic ecosystems generated by water warming and sea level rise; extinction of certain flora and fauna species (Climate Change Post 2023). For example, in Romania six species of invertebrates, eight plants and ten new vertebrates were registered as invasive in June 2023. Invasive alien species are of increasing interest due to the negative effects on biodiversity, the health of the human population, and the economy (CCMESI 2023). Also, the impact of invasive species is felt in forestry, agriculture and animal husbandry, fish farming, transport, trade, protected natural areas, urban and rural human settlements.

b) In terms of the main consequences triggered by climate change, according to *Think Hazard* instrument developed by the World Bank and the Global Facility for Disaster Reduction and Recovery (GDFRR), in Romania there were identified the following risks and threats in terms of natural hazards: river flood (high)², urban flood, landslide, wildfire, earthquake, water scarcity and extreme heat. All of these elements are able to damage the agrifood³ sector and water sources increasing food insecurity and water scarcity.

Food security is defined as the access for all people at all times to enough food for an active, healthy life, definition grounded on three aspects namely, adequacy of food availability (effective supply), the adequacy of food access in terms of individuals’ ability to acquire sufficient food (effective demand) and the reliability of both. Thus, food insecurity can be a failure of availability, access, reliability or some combination of these factors. (Food and Agriculture Organisation of the United Nations 1996). Statistics show that in Romania, food insecurity is mostly built on the lack of access to financial resources to acquire sufficient food (FAO Statistics Division 2023), as the population’s average incomes⁴ are very low as well as the GDP per inhabitant expressed in purchasing power parity terms, and not necessarily

² This means that potentially damaging and life-threatening river floods are expected to occur at least once in the next 10 years (World Bank; GDFRR 2023).

³ Agrifood refers to food produced as a result of agriculture.

⁴ According to Romanian National Institute of Statistics, in Quarter IV 2022, on average, household income was 6634 lei and expenditure was 5842 lei, from which food products and non-alcoholic beverages were 34,8% (The National Institute of Statistics 2023, 3-4)



of food unavailability⁵. Also, other studies indicate that national water scarcity is classified as “medium”, score showing that there is “up to a 20% chance droughts in the coming 10 years” (World Bank; GDFRR 2020). Still, a medium and long term issue is represented by the decline in the most important crops used for population nutrition⁶ and fresh water decay as results of climate change effects.

e) The World Health Organization (WHO) considers climate change to be the greatest threat to health in the 21st century. Climate change affects people’s safety, health and well-being through direct impact by amplifying the intensity and frequency of extreme weather events (such as heat waves, floods and wildfires) and indirect impact through worsening of air quality, changes in the spread of infectious diseases, changes in food and water quality and effects on mental health (World Health Organization 2023). In Romania, since the mid-1980s, extremely high values for summer thermal stress that indicates an increased risk to human health during summers (Climate Change Post 2023). Another aspect is the risk of infectious diseases spreading beyond tropical regions to temperate zones, for example “dengue fever, Chagas, leishmaniasis, Chikungunya, schistoso-miasis” (Ivanescu 2023). Climate change effects’ health risks are mostly affecting vulnerable categories of people like children, pregnant women, elderly people and people with chronic conditions and people from disadvantaged areas with poor access to financial means, medical aid and other social services.

4. Vulnerabilities Transposed by Climate Changes in Ecological Risks and Threats Impacting against the National Security

Environmental security is part of the national security. Also, the different political, economic, societal, environmental, military sectors’ vulnerabilities are transposed in risks and threats against national security. In this part of the paper there will be identified only some vulnerabilities transposed by climate changes effects in ecological risks and threats against Romania’s security sectors.

Some vulnerabilities identified at the national level in policy documents and resilience plans that have the potential to trigger or worsen ecological threats and risks detrimental to different security sectors that proved to be of great impact over Romania are listed in Table no. 1.

⁵ Global Hunger Index 2023: Romania shows that 2 Romania is one of 20 countries with a low GHI score of less than 5”, meaning that the level of hunger is low (GHI 2023).

⁶ Average grain yields tend to decrease by 14.4% between 2021-2050, and more abruptly, by 36.5% between 2071-2100 (Climate Adapt 2014).

Table no. 1 – Vulnerabilities detrimental to security that generate or facilitate ecological threats and risks development (author’s concept)⁷

Vulnerability	Affected security sectors	Ecological threats and risks¹
Improper budgeting and public funds management and low exploitation of European funds directed toward environmental security (green energy production, irrigation systems, dams, afforestation, water desalination systems, etc.)	- Political - Economic - Societal - Environmental	- failure to mitigate climate change - more biodiversity loss and ecosystem collapse - failure in achieving European goals in global warming policies; - diminished grain crops; - smaller reserves of fresh water; - pollution growth.
Delay in the implementation of endowment programs for the modernization of response capabilities to ecological crises		- failure of climate-change adaptation; - Natural resource crises.
Reduced resilience of the medical system to diseases that have appeared on the territory of Romania as a result of climate change.	- Economic - Societal - Environmental - Military	- more imported disease from the tropical regions; - increase of illness and deaths, particularly in the vulnerable categories of population; - health crises.
Gaps in economic development in the perspective of the transition to a “green” economy capable of coping with climate change in terms of infrastructures, technologies, connections, transport, etc.	- Political - Economic - Societal - Environmental - Military	- failure of climate-change adaptation; - increased differentiation between green and polluting technologies; - increased green gas emissions.
Intensification of urbanization.	- Economic - Societal - Environmental - Military	- natural habitats destruction; - diminution of arable land; - deforestation; - increase in occurrence of natural disasters and extreme weather events; - accelerated decay of biodiversity and fresh water quality.
Improper waste management.	- Economic - Societal - Environmental	- accelerated pollution growth; - more large-scale environmental damage incidents.
Low level of security culture of the population in the field of ecology and climate change.	- Economic - Societal - Environmental	- poor collecting, processing and reuse of waste materials; - lack/or low awareness over the carbon print importance for the ecosystem and biodiversity; - natural resources crisis.

Obviously, in addition to the above, other vulnerabilities can be added, such as: the increase in salinity of the Black Sea tributaries, which can cause changes in

⁷ Many of these risks are also identified as global risks ranked by severity over the short and long term, as are presented in Global Risks Report 2023 (World Economic Forum 2023, 6).

the freshwater flora, which will be replaced by a typical vegetation of a saltwater ecosystem; higher water temperatures can cause algae to grow, especially in shallow lakes, endangering the drinking water supply; irrational exploitation of natural resources, economic development inequalities between regions, etc.

5. Initiatives to Mitigate Climate Change by Diminishing National Vulnerabilities

Nowadays climate change, along with demographic developments, pandemics and economic crisis, is considered to pose direct threats to national and international security. Also, the most effective way to diminish the threats posed by climate-fragility risks is, on one hand, to mitigate climate changes' sources and effects and, on the other hand, to diminish the vulnerabilities to climate change of ecosystem made up of people and socio-economic and natural environments. And this is where the resilience seen as a solution for climate change that can bring economic benefits while improving our lives and protecting the environment comes in.

Climate change impact is mitigated differently from state to state, from region to region, or even from one microclimate to another, depending on the level of threat perception, affected sectors and resources. The process doing all that is called resilience. In Figure no. 2, it is shown how many efforts countries worldwide are making in order to mitigate climate change.

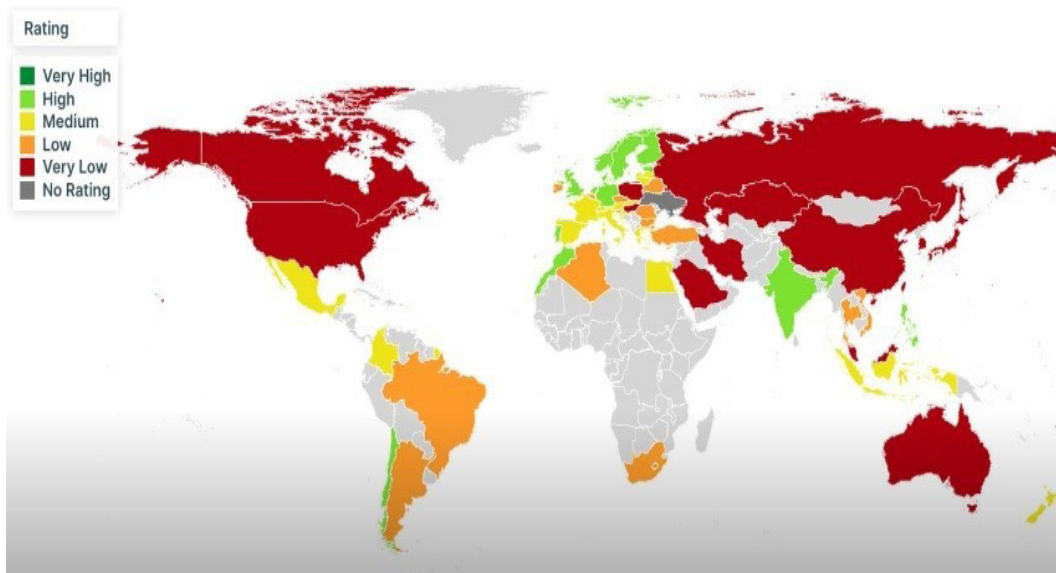


Figure no. 2: World countries climate protection performance (Climate Change Performance Index 2023)



The analysis is performed through The Climate Change Performance Index (CCPI)⁸, “an instrument ... that uses a standardized framework to compare the climate performance of 59 countries and the EU, which together account for 92% of global greenhouse gas emissions” (Climate Change Performance Index 2023).

Romania is among the countries with low performance in climate change resilience. Still, in the National Defence Strategy of Romania 2020-2024, we found that the ideas regarding climate change are focus on the fact that “it will be more and more present and more extensive, having the potential to reach a critical level for Romania’s security”; also, „it is accelerated by the intensification of urbanization”; „it has associated risks (degradation or disappearance of cultural heritage); „it has unpredictable evolution”; „its effective combat supports the process of sustainable development” and „there is a need to move to a green and circular economy in order to diminish its effects” (SNAp 2020). Thus, in the Strategy the climate change topic is seen as a severe security issue that has the capacity to unpredictably become increasingly important in the future, owed to the Romanian society transformation and its combined threats and risks, but its mitigation is regarded as an opportunity for sustainable development through green solutions and circular economy.

At the national level, “in a broader context of EU climate objectives, namely to significantly cut greenhouse gas emissions by 2030 and achieve climate neutrality by 2050, the funds allocated to Romania for fulfilling these objectives are an important opportunity for structural reforms and sustainable economic growth” (National Bank of Romania 2021, 6). Therefore, the vulnerability of poor European funds absorption directed toward environmental security resilience building must be properly approached, nevertheless, under the situation when gaps in economic development in the perspective of the transition to a “green” economy capable of coping with climate change in terms of infrastructures, technologies, connections, transport, etc., are still present compared to other EU Member States.

The national environmental security system is composed by regulation and control institutions aimed to develop strategies to adapt to climate changes the main affected areas (biodiversity, agriculture, water resources, forests, vital infrastructures, energy-efficient constructions, eco-tourism, green energy, industry, transport, health, etc.). For this purpose, the EU Recovery and Resilience Facility (RRF) is a temporary instrument - centrepiece of Next Generation EU - a plan to emerge stronger and more resilient EU member from the current crisis. The delay in the implementation of endowment programs for the modernization of response capabilities to ecological crises comes from the “particular need to improve infrastructure and increase investments in water, waste, wastewater and air pollution infrastructure” (European Commission 2021). Romania’s National Recovery and

⁸ The climate protection performance is assessed in four categories: GHG Emissions, Renewable Energy, Energy Use and Climate Policy.



Resilience Plan (NRRP) embodies reforms and investments part of them directed to facilitate the country's green transition and has to be implemented by 2026. The health crisis provoked by the COVID-19 pandemic overwhelmed the national medical system. Reduced resilience of the medical system to diseases that have appeared on Romanian territory as a result of climate change is a vulnerability that can also be reduced through NRRP investments.

Urbanization often results in increased temperatures partly because of the formation of urban heat islands, or localized areas of heat storage near urban centres, as well because of deforestation to build urban areas. A viable solution to reduce this vulnerability is setting forest curtains and urban and peri-urban forests. Moreover, this vulnerability is corroborated with improper waste management. In support of this idea, Romania adopted its National Waste Management Plan (NWMP) and waste prevention programme, both of which are valid until 2025. Still, owed to a third vulnerability, namely the low level of security culture of the population in the field of climate change in terms of implementing mitigation measure, which transposes in an overall recycling rate of 13.7% for 2020, which represents a large gap to the recycling target for 2025 (55 %) (European Environment Agency 2022, 9). The idea is that polls show that 88% of Romanians are aware that they are affected by climate change (European Investment Bank 2021), but the public is poorly involved in actually implementing policies on the ground. Actually, a zero waste policy has poor prospects because of the lack of civil society involvement, to which precarious infrastructure for the waste management, the complexity of the implementing process and lack of experience are added. Still, there is hope in this direction as, in 2021, Amera Tower building in Cluj Napoca became the first zero waste pre-certified building in Romania.

Conclusions

Ecological security represents a tremendous challenge because it enhances the preservation and protection of a natural environment suitable for humanity existence and perpetuation.

One of the main challenges of ecological security comes from the effects of climate changes triggered by human activity unbalancing the green gas emissions that transpose in increasingly high temperatures that cause changes in the geographical distribution of climate zones. In their turn, these changes are altering the distribution and number of plant and animal species, which are already under pressure from habitat loss and pollution.

Because of climate change, we are witnessing a decrease of the yield and viability of agriculture and animal husbandry or of the capacity of ecosystems to provide important services and goods (such as the supply of clean water or cool,



clean air). Furthermore, droughts often have knock-on effects, for example on transport infrastructure, agriculture, forestry, water and biodiversity. Temperature increases also influence the behaviour and life cycles of animal and plant species, in the sense that the number of pests and invasive species increases, as well as the incidence of certain human diseases by multiplying health risk factors.

Comparing the picture of the effects of climate change with their associated threats and risks, we find that they are ramified and interconnected. For example, global warming has had the impact of changing the pattern of precipitation which has become either extremely light or extremely abundant, and the volume of precipitation generates extreme phenomena (drought and floods) which, in turn, can affect the volume and quality of agricultural products and reduces biodiversity. At the same time, it also presents associated risks for the health of people and animals in the affected areas by reducing the vital resources of food and water for the population, inducing food insecurity and implicitly affecting life quality, a fact that can in turn generate migration from the areas in question.

In the climate security equation, the identification of vulnerabilities (along with threats and associated risks) is an important step for mitigating the disruptive impact of climate change. Also, the diminish or eradication of the identified national vulnerabilities (finances' mismanagement, infrastructure and green technology gaps, extended urbanization, improper waste management, etc.) can lead to a lower impact on the security sectors and a greater level of resilience with proper planning and implementation initiatives undergone with the support of the EU finances, know-how and policies.

BIBLIOGRAPHY:

- Anthony Dworkin. 2020. *Why America is facing off against the International Criminal Court*. September 8. Accessed on 30 January, 2023. https://ecfr.eu/article/commentary_why_america_is_facing_off_against_the_international_criminal_cou/
- Atanasiu, Mirela. 2022. "Războiul ruso-ucrainean. Consecințe în plan internațional." *Colocviu Strategic*, April-May: 5-9.
- Baker Institute. 2016. *The Rise of Populist Nationalism in Europe & U.S.* Accessed on 12 October, 2022. <https://www.bakerinstitute.org/event/rise-populist-nationalism-europe-us>
- Börzel, Tanja A., and Michael Zürn. 2021. "Contestations of the Liberal International Order: From Liberal Multilateralism to Postnational Liberalism." *Econstor* 282.
- Busby, Joshua. 2008. "Who Cares about the Weather? Climate Change and US National Security." *Security Studies* 17 (3).



- Buzan, Barry, Ole Waeber, and Jaap de Wilde. 2011. *Securitatea. - un nou cadru de analiză*. Cluj-Napoca: CA Publishing.
- CCMESI. 2023. *Managementul adecvat al speciilor invazive din Romania, in conformitate cu regulamentul UE 1143/2014, referitor la prevenirea si gestionarea introducerii si raspandirii speciilor alogene invazive*. Accessed on 12 August, 2023. <https://invazive.ccmesi.ro/despre-speciile-invazive/impactul-sai/>.
- Cîrciumaru, Florian, and Dan-Lucian (coord.) Petrescu. 2022. *Amenințări și riscuri la adresa securității României - orizont 2040*. Bucharest: “Carol I” National Defence University Publishing House.
- Climate Adapt. 2014. “Climate change adaptation measures in Romanian agriculture.” Accessed on 20 November, 2023. <https://climate-adapt.eea.europa.eu/en/metadata/case-studies/climate-change-adaptation-measures-in-romanian-agriculture>
- . 2023. “Step 2. Assessing climate change risks and vulnerabilities.” Accessed on 08 November, 2023. <https://climate-adapt.eea.europa.eu/en/mission/knowledge-and-data/regional-adaptation-support-tool/step-2-assessing-climate-change-risks-and-vulnerabilities>
- Climate Change Performance Index. 2023. *CCPI 2023: Ranking and Results*. Accessed on 01 November, 2023. <https://ccpi.org/>
- Climate Change Post. 2023. “Romania.” November 13. Accessed on 11 November, 2023. <https://www.climatechange.org/post/romania/biodiversity/>
- Climate Home News. 2020. *Which countries have not ratified the Paris climate agreement?* 08 13. Accessed on 12 January, 2023. <https://www.climatechangenews.com/2020/08/13/countries-yet-ratify-paris-agreement/>
- Counter Extremism Project. 2021. *White Supremacy Groups in the United States*. Accessed on 05 January, 2023. https://www.counterextremism.com/sites/default/files/supremacy_landing_files/U.S.%20White%20Supremacy%20Groups_111422.pdf
- Democracy. 2022. “China’s Assertive Authoritarianism.” *Democracy. A journal of ideas* <https://democracyjournal.org/magazine/62-special-issue/chinas-assertive-authoritarianism/>
- European Commission. 2021. “Romania’s recovery and resilience plan.” Accessed on 17 November, 2023. https://commission.europa.eu/business-economy-euro/economic-recovery/recovery-and-resilience-facility/country-pages/romania-recovery-and-resilience-plan_en
- European Environment Agency. 2022. “Early warning assessment related to the 2025 targets for municipal waste and packaging waste.” June. Accessed on 10 November, 2023. <https://www.eea.europa.eu/publications/many-eu-member-states/romania>



- European Investment Bank. 2021. “88 % dintre români consideră că schimbările climatice au impact asupra vieții lor zilnice (mai mult cu 11 puncte decât media europeană de 77 %).” November 10. Accessed on 19 November, 2023. <https://www.eib.org/en/press/all/2021-398-88-of-romanians-feel-that-climate-change-has-an-impact-on-their-everyday-lives-11-points-above-the-european-average-of-77?lang=ro>
- FAO Statistics Division. 2023. “Food Insecurity Experience Scale 2021.” *World Bank*. January 11. Accessed on 12 November, 2023. <https://microdata.worldbank.org/index.php/catalog/5431>.
- Food and Agriculture Organisation of the United Nations. 1996. “THE STATE.” *FAO*. Accessed on 14 November, 2023. https://www.fao.org/3/w1358e/w1358e14.htm#P36_6144.
- Fukuyama, Francis. 1992. *The End Of History and the Last Man*. New York: The Free Press.
- GHI. 2023. “Global Hunger Index 2023; Romania.” Accessed on 20 November, 2023. <https://www.globalhungerindex.org/pdf/en/2023/Romania.pdf>
- Global Governance Forum. 2022. *The Origins of the UN Veto and Why it Should be Abolished*. April 28. Accessed on 10 January, 2023. <https://globalgovernanceforum.org/origins-un-veto-why-it-should-be-abolished/>
- Government of Canada. 2023. “Climate change concepts.” Accessed on 11 October, 2023. <https://www.canada.ca/en/environment-climate-change/services/climate-change/canadian-centre-climate-services/basics/concepts.html>
- Institute for Economics & Peace. 2020. *Ecological Threat Register*. Sydney: Institute for Economics & Peace. https://www.visionofhumanity.org/wp-content/uploads/2020/10/ETR_2020_web-1.pdf
- Intergovernmental Panel on Climate Change. 2007. “Climate Change 2007: Impact, Adaptation and Vulnerability.” Accessed on 12 September, 2023. https://www.ipcc.ch/site/assets/uploads/2018/03/ar4_wg2_full_report.pdf
- . 2023. “Climate Change 2023. Synthesis Report.” *IPCC*. Accessed on 12 October, 2023. https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_LongerReport.pdf
- Ivanescu, Larisa Maria et al. 2023. “The Risk of Emerging of Dengue Fever in Romania, in the Context of Global Warming.” *Tropical Medicine and Infectious Disease*. https://click.endnote.com/viewer?doi=10.3390%2Ftropicalmed8010065&token=WzMwMTAzMTAsIjEwLjMzOTAvdHJvcGljYWxtZWQ4MDEwMDY1Ii0.c_NQ0HVLO7lWx9LzWnw_mngF96w
- McDonald, Matt. 2015. *Ecological Security*. Nov 28. Accessed on 23 September, 2023. <https://www.e-ir.info/pdf/59858>
- Ministry of Environment and Climate Change. 2014. “CBD Fifth National Report - Romania (English version).” *Convention on Biological Diversity*. October.



- Accessed on November 10, 2023. <https://www.cbd.int/doc/world/ro/ro-nr-05-en.pdf>
- NASA. 2020. *De ce ciclurile Milankovitch (orbitale) nu pot explica încălzirea curentă a Pământului*. February 27. Accessed on 22 September, 2023. <https://climate.nasa.gov/explore/ask-nasa-climate/2949/why-milankovitch-orbital-cycles-cant-explain-earths-current-warming/>
- . 2023. “How Do We Know Climate Change Is Real?” Accessed on 23 September, 2023. <https://climate.nasa.gov/evidence/#:~:text=Earth's%20climate%20has%20changed%20throughout%20history,era%20%E2%80%94%20and%20of%20human%20civilization>
- National Bank of Romania. 2021. “Climate risk dashboard for the banking sector in Romania.”
- Nature. 2023. “Climate-change ecology articles from across Nature Portfolio.” Accessed on 21 October, 2023. <https://www.nature.com/subjects/climate-change-ecology#:~:text=Climate%2Dchange%20ecology%20is%20the,physiology%20of%20populations%20and%20communities>
- Organski, AFK. 1968. *World Politics, Second Edition*. New York: Alfred A. Knopf.
- RAND Corporation. 2006. “Antiglobalization Movements.” In *Beyond al-Qaeda: Part 2, The Outer Rings of the Terrorist Universe*, by Angel et al. Rabasa, 85-100. Rand Corporation.
- ReliefWeb. 2020. *Ecological Threat Register 2020*. Sept 10. Accessed on 11 September, 2023. <https://reliefweb.int/report/world/ecological-threat-register-2020>
- SNAp . 2020. “Strategia Națională de Apărare a Țării pentru perioada 2020-2024. “Împreună, pentru o Românie sigură și prosperă într-o lume marcată de noi provocări”.” *presidency.ro*. Accessed on 12 October, 2023. https://www.presidency.ro/files/userfiles/Documente/Strategia_Nationala_de_Aparare_a_Tarii_2020_2024.pdf
2021. *The Center for Climate and Security*.
- The Ecological Society of America. 2023. “What Is Ecology?” Accessed on September 12, 2023. <https://www.esa.org/about/what-does-ecology-have-to-do-with-me/>
- The National Institute of Statistics. 2023. “Press Release.” *INSSE*. April 6. Accessed on 16 November, 2023. https://insse.ro/cms/sites/default/files/com_presa/com_pdf/abf_tr4e22.pdf
- The Security Council of the Russian Federation. 1996. *Environmental security of Russia* (2): 55. <https://www.sciencedirect.com/topics/earth-and-planetary-sciences/environmental-security#:~:text=Environmental%20security%20is%20protectedness%20of,ecosystems%2C%20and%20survival%20of%20humankind>

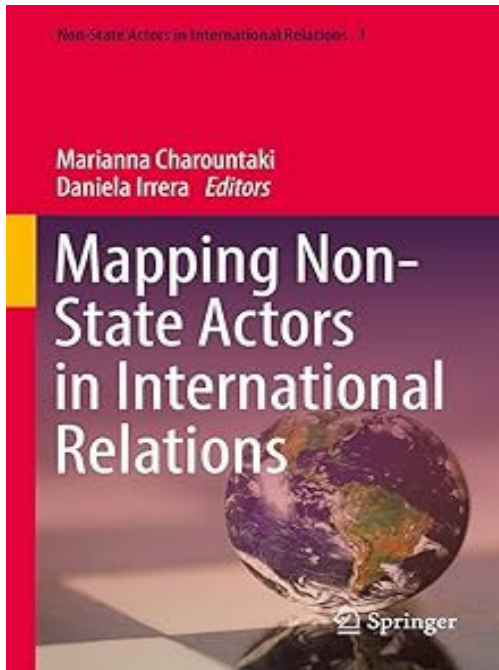


- UN. 2002. "Rome Statute of the International Criminal Court." *Article 12 (3)*, July 1.
- . 1945. *Charter of the United Nations*.
- . 2015. *Convention of Biological Diversity*. Accessed on 12 January, 2023. <https://www.cbd.int/information/parties.shtml>
- UN Environment. 2018. "Environmental security: dimensions and priorities." June. Accessed 08 24, 2023. https://www.thegef.org/sites/default/files/publications/52103%20STAP%20Report_WEB.pdf
- United Nations Regional Information Center and Western Europe. 2023. *The UN and the war in Ukraine: key information*. 01 30. Accessed on 30 January, 2023. <https://unric.org/en/the-un-and-the-war-in-ukraine-key-information/>
- United Nations University. 2008. "Legality and Legitimacy in International Order." *Policy Brief* (United Nations University Press) (5): 1. Accessed on 14 May, 2022. https://www.files.ethz.ch/isn/89752/PB_08-05.pdf
- Wijninga, Peter, Willem Theo Oosterveld, and Jan Hendrik Galdiga. 2014. "STATE AND NON-STATE ACTORS: BEYOND THE DICHOTOMY." In *Strategic Monitor*, 146. Hague: Hague Centre for Strategic Studies.
- World Bank; GDFRR. 2023. "Romania. River Flood." *Think Hazard*. Accessed on 16 November, 2023. <https://thinkhazard.org/en/report/203-romania/FL>
- . 2020. "Romania. Water scarcity." *Think Hazard*. 09 25. Accessed on 12 November, 2022. <https://thinkhazard.org/en/report/203-romania/DG>
- World Economic Forum. 2023. "Global Risks Report 2023, Eighteenth edition." Accessed on 20 November, 2023. https://www3.weforum.org/docs/WEF_Global_Risks_Report_2023.pdf
- World Health Organization. 2023. "Climate change." *WHO*. October 12. Accessed on 15 November, 2023. <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>
- World Meteorological Organization. 2020. *COP22 advances global action on climate change*. Accessed on 25 October, 2023. <https://public.wmo.int/en/resources/meteoworld/cop22-advances-global-action-climate-change>



MAPPING NON-STATE ACTORS IN INTERNATIONAL RELATIONS

by Marianna Charountaki and Daniela Irrera



Actors in International Relations (IR) system are subjects of international affairs. In the Westphalian order, the International Relations theory has focused on states as the most important actors in global politics but nowadays Non-State Actors (NSAs) are forging ahead due to their outstanding roles and importance in international politics.

There is many literature review focused on NSAs study because specialists in the field unacknowledged this is crucial element for developing a genuine understanding of contemporary international affairs, but usually analysis have been done through the prism of state-centric IR theories.

“Non-State Actors in International Relations” (NAIR) is a Springer book series of two volumes analysing the role

of non-state actors and their agency in the foreign policy domain, firmly grounding Non-State Actors in the ontology of international relations IR theory and creating a closer nexus between Area Studies (AS) and Foreign Policy Analysis (FPA).

This book series fills a gap in the current literature and need to be acknowledged by academia students and experts acting in various fields of social sciences (international relations theory, international politics, international security, diplomatic history, conflict theorists, European and Middle East politics), as well as for different level policy-makers and practitioners.

The review presents the 1st volume “Mapping Non-State Actors in International Relations”, printed in 2023 under the editorial guidance of Marianna Charountaki, Senior Lecturer in International Politics within the University of Lincoln, UK, and Daniela Irrera, Professor (Full) of Political Science and International Relations, School of Advanced Defence Studies within the University of Catania, Italy.



This first book in the series investigates the role of non-state actors (NSAs) in International Relations in various policy fields and through different theoretical perspectives (Realism, Liberalism, Constructivism, or even Primordialism¹), therefore making a standing point in the lively debate discussing what kind of influence NSAs might have on states and international relations.

This work stands as an insightful and useful handbook that offers a fresh specialized theoretical view on what foreign policy is nowadays, by expanding its scope of analysis through shifting the state-centred perspective towards a more timely-adapted one, wherein non-state actors increasingly affect processes and outcomes in international politics. Moreover, through the areas studies involved in this book, regional contexts and examples are used to improve existing theories related to NSAs.

The seven chapters of this 1st volume are authored by specialists in diverse disciplines as International Relations, Political Science and/or Strategic Studies from Europe (4 from UK, one from Portugal, one from Czech Republic, and one from Italy), and Asia (one from UAE, one from Iraq), but all have in common their expertise in parts of Middle East politics and actors.

Chapter 1 – “Conceptualising Non-State Actors in International Relations” authored by Marianna Charountaki, represents a theoretical contribution that frames the role of Non-State Actors in International Relations discipline as an under-examined subject-matter. This introductory study “situates its argument within the current debate of the increasing power of NSAs in international relations (IR) and what this means for the theory” (Charountaki and Irrera 2023, 1) by explaining through a four-fold rationale² the importance of the conceptualisation of NSAs within IR theory.

All the argumentative construction in the first chapter is made for non-state actors, similarly as for states in the IR theoretical perspectives, in terms of power and competition between different entities, as well as from the angle of their exerted influence on the international arena, in order to backbone NSA’s position as essential constituents, together with state entities of the IR ontology. Thus, in this respect, the author argues that NSAs can bear different foreign policy roles as agents (particularly

¹ Theory considering “ethnicity as a fixed characteristic of individuals and communities being embedded in inherited biological attributes, a long history of practicing cultural differences, or both”. (Britannica 2023)

² The author’s first argument is that “the practical needs call for simplification in approaching them, on account of their multi-faceted complications”. The second stands in “their ability to influence the behaviour of state entities in a different way requires clarification as to their identity and their involvement in both state and non-state interactions”. The third argument is “NSAs are traditionally perceived through the lens of state interests or identified with institutions (mainly those of an economic orientation)”. The fourth argument brought in the rationale is that „NSAs constitute one component of the evolution of the international system that continues to inform the nature of IR” (Charountaki and Irrera 2023, 3).



states-to-be category) or facilitators (irregular armies and militias) which are similar to the states' assumed roles in this concern.

As a main conclusion, this first study largely, "... offers a conceptualisation of the non-state entities and provides the ground for the book's rationale. In specific, the chapter offers a definition as to what non-state actors are based on a systematic and coherent analysis and creates a typology (of the nature) of NSAs" (Charountaki and Irrera 2023, 1). Therefore, the classification comprised in the study aims to ground Non-State Actors' existence as an intrinsic part of the IR's ontology and addressing their status in the global system in terms of praxis. Thus, this classification shapes the book's main structure, with the following chapters divided among different types of NSAs, each supported by representative examples.

Chapter 2 – "The Power and Impact of Institutions in International Relations: From Intergovernmental to Non-Governmental Organizations" authored by Daniela Irrera, focuses a new approach "on the relationship between IGOs and NGOs and their effect on security and conflict management" (Charountaki and Irrera 2023, 17), by understanding the NGOs' international roles and their transformative power over some sensitive policy fields. This is seen by the author to be needed because even the wide range of organizations are permanently empirically observed, evaluated, and investigated, this type of approach based on their typology (economic, political, religious, cultural, security-focused) corroborated with their *modus operandi* is a new one.

In order for the goal of the research to be achieved, the analysis in this chapter is multi-layered. Thus, at first, international institutions are theoretically investigated from the perspective of their relations with states and influence they have over the global political agenda setting. Next, the most prominent examples of IOs and NGOs are studied to identify their functions and abilities used in influencing global policies. Finally, it is analysed "their potential is particularly deepened in the global humanitarian system as an extremely sensitive field, in which policies, practices, and norms are the result of the match and the collision between the governmental and the non-governmental dimensions" (Charountaki and Irrera 2023, 17). Thus, international organizations are analysed from their roles on the international arena as agents of power in respect to state and governmental power, but also as agents of change.

Chapter 3 – "Irregular Militaries and Militias in International Relations Theory: The Case of Iraqi Shiite militias", co-authored by Sterling Jensen and Waleed Al-Rawi, investigates armed Non-State Actors, focusing on three cases of Iraqi Shiite militias: Wala'ya, Marja'ya, and Sadrist.

This chapter starts from the hypothesis that although "many irregular militaries and militias have more coercive capabilities than states and engage in strategic conflicts in the international environment, yet there is no established epistemology to study them" (Charountaki and Irrera 2023, 35), therefore, by this analysis is intended to fill part of the identified theoretical gap.



In this part of the book there are indicated the roles of armed Non-State Actors ranging from “the cooperation with states to defend the status quo, to working against the state as agents of radical change” (Charountaki and Irrera 2023, 36).

After presenting the three subjects of case studies from different theoretical angles (Realism, Liberalism, and Constructivism), the author provides an interesting perspective, namely that “IR theories need more tools to better analyse the extent of the proxy relationship and explain how armed Non-State Actors in some cases can wield more influence in a strategic conflict than can states” (Charountaki and Irrera 2023, 48) and “there is no one-size-fits-all theory that can explain militias’ behaviour” (Charountaki and Irrera 2023, 48), which reflects the need for an NSAs ontology built against IR theories.

In Chapter 4 – “Dilemmas of fundamentalist Non-State Actors in International Relations”, Patrick Finnegan and Vladimir Rauta, both specialists in conflict research and international security field, challenge some of the long running assumptions around the topic of fundamentalism, usually seen simplistically by being religiously triggered, presenting it as “a strategic choice which brings positive and negative consequences to those who embrace it” (Charountaki and Irrera 2023, 53).

This chapter is grounded on studies on the Provisional Irish Republican Army and The Bosnian Serb Army, two ethno-nationalist organisations in Europe, which “held binary views of the world and relied exclusively on force, at least initially” (Charountaki and Irrera 2023, 55), to show how fundamentalists can exist beyond religion, although this aspect is not eliminated. All their analyses is grounded on the idea that fundamentalist NSA should be integrated as such into the IR’s ontology.

Chapter 5 – “The impact of ethnic groups on International Relations” is authored by Maria do Céu Pinto Arena, Political Science specialist, and presents ethnic groups as NSAs capable to play roles both in domestic and in international politics. In this respect, the author explains ethnic identity and/or ethnic conflict through different theoretical approaches of Primordialism, Rationalism, and Constructivism.

The main conclusion of the analysis is that IR scholars have sought to analyse the phenomenon of ethnical conflict by employing the “security dilemma”, which is a narrow approach as ethnic conflicts have a more complex nature, usually bearing actual decisive factors that are political rather than ethnic (Charountaki and Irrera 2023, 89), which make ethnical groups important actors to be thoroughly studied among the IR theory perspectives.

Marianna Charountaki and Radka Havlová, both specialized in the study of Middle East conflicts, co-authored Chapter 6 – “States-to-Be as Foreign Policy Actors” wherein is demonstrated why foreign policy practice is critical for “states-to-be” (the top tire NSAs) survival and further development, through two study cases (Kurdistan Regional Government – KRG and Palestinian Liberation Organisation - PLO).

In achieving the research goal, the authors investigate states-to-be inventory (quasi-states, para-states, failed states, as-if-states, states-within-states etc.) which



give a clearer vision on the subject matter. A pertinent conclusion of this chapter is that “those single entities (which are often a more consolidated iteration of ethnic groups) that are able to progress and develop a distinct role—and thus status—in the regional and international realms are ... states-to-be” (Charountaki and Irrera 2023). Therefore, the debate started from the idea that states-to-be are characterised by attributes similar to those of states and embody power and change agencies, which gives an upgraded role in international relations (Charountaki and Irrera 2023, 98), so that, they can be considered equally as the other actor, therefore the whole study offers new IR ontological insights from the perspective of Foreign Policy Analysis.

Chapter 7 – “Conclusion. Understanding the role of non-state actors in a mutable global system” authored by Daniela Irrera “summarises the main rationale and findings of the book by highlighting the most important issues raised in the previous chapters” (Charountaki and Irrera 2023, 111). This chapter represents a diagnosis of NSAs impact on international relations realm, both conceptually and empirically, “meant to connect these multifaceted entities to the ontology of the International Relations (IR) discipline” (Charountaki and Irrera 2023, 111). Here are emphasized new thesis as the one emitted by Charountaki arguing that “a review of the understanding of NSAs is necessary to grasp the dynamics of their status” (Charountaki and Irrera 2023, 111) in order to fill the theoretical gap by reconnecting IR to area studies in a dynamic post-Westphalian world, because the terminology employed by IR scholars mainly referring to the state cannot help in the analysis of states-to-be.

This handbook offers a strong theoretical foundation from which further debates on IR ontology can be launched. Therefore, the purpose of the book is double-folded: to emphasize the increasing role and importance of different categories of NSAs’ (particularly states-to-be) in the international politics, and to inspire researchers in various policy fields involved in conceptual and empirical studies of NSAs to search for new instruments and methods for a better understanding of the plethora of non-state actors.

BIBLIOGRAPHY:

Charountaki, Marianna, and Daniela (editors) Irrera. 2023. *Mapping Non-state Actors in International Relations*. Cham, Switzerland: Springer, <https://doi.org/10.1007/978-3-030-91463-9>

*Mirela ATANASIU, PhD**

* *Mirela ATANASIU, PhD, is Senior Researcher within the Centre for Defence and Security Strategic Studies, within the “Carol I” National Defence University, Bucharest, Romania and Associate Researcher at the Doctoral School of Safety and Security Sciences, Obuda University, Budapest, Hungary. E-mail: atanasiu.mirela@yahoo.com*



GUIDE FOR AUTHORS

We welcome those interested in publishing articles in the academic journal *Strategic Impact*, while subjecting their attention towards aspects to consider upon drafting their articles. **Starting with issue no. 1/2023, the journal shall be published in the English language only!**

MAIN SELECTION CRITERIA are the following:

- ✓ **Compliance with the thematic area of the journal – security and strategic studies** and the following topics: political-military topical aspects, trends and perspectives in security, defence, geopolitics and geostrategies, international relations, intelligence, information society, peace and war, conflict management, military strategy, cyber-security;
- ✓ **Originality** of the paper – own argumentation; novelty character – not priorly published;
- ✓ **Quality of the scientific content** – neutral, objective style, argumentation of statements and mentioning of all references used;
- ✓ **A relevant bibliography**, comprising recent and prestigious specialized works, including books, presented according to herein model;
- ✓ **English language** shall meet academic standards (British or American usage is accepted, but not a mixture of these).
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- ✓ **Article length** may vary between **6 and 12 pages** (25.000 - 50.000 characters), including bibliography, tables and figures, if any.
- ✓ **Page settings**: margins – 2 cm, A 4 format.
- ✓ The article shall be written in **Times New Roman font, size 12, one-line spacing.**
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- ✓ **Title** (centred, capital, bold characters, font 24).
- ✓ **A short presentation of the author**, comprising the following elements: given name, last name (the latter shall be written in capital letters, to avoid



confusion), main institutional affiliation and position held, military rank, academic title, scientific title (PhD title or PhD Candidate – domain and university), city and country of residence, e-mail address.

- ✓ A relevant **abstract**, not to exceed 150 words (italic characters)
- ✓ 6-8 relevant **keywords** (italic characters)
- ✓ **Introduction / preliminary considerations**
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- ✓ **Tables / graphics / figures**, if they are useful for the argumentation, with reference made in the text. They shall be also sent in .jpeg /.png/.tiff format as well.

In the case of tables, please mention above “**Table no. X:** Title”, while in the case of figures there shall be mentioned below (e.g. maps, etc.), “**Figure no. X:** Title” and the source, if applicable, shall be mentioned in a footnote.

REFERENCES

It is academic common knowledge that in the Abstract and Conclusions there shall not be inserted any references.

The article shall have references and bibliography, in the form seen below. Titles of works shall be mentioned in the language in which they were consulted, with transliteration in Latin alphabet if there is the case (e.g. in the case of Cyrillic, Arabic characters, etc.). Please provide English translation for all sources in other languages.

The article will comprise in-text citation and bibliography (in alphabetical order), according to The Chicago Manual of Style¹, as in examples below:

BOOK

Reference list entries (in alphabetical order)

Grazer, Brian, and Charles Fishman. 2015. *A Curious Mind: The Secret to a Bigger Life*. New York: Simon & Schuster.

Smith, Zadie. 2016. *Swing Time*. New York: Penguin Press.

In-text citation

(Grazer and Fishman 2015, 12)

(Smith 2016, 315–16)

¹ URL: https://www.chicagomanualofstyle.org/tools_citationguide/citation-guide-2.html



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In the reference list, include the page range for the chapter. In the text, cite specific pages.

Reference list entry

Thoreau, Henry David. 2016. "Walking." *In The Making of the American Essay*, edited by John D'Agata, 167–95. Minneapolis: Graywolf Press.

In-text citation

(Thoreau 2016, 177–78)

ARTICLE

In the reference list, include page range for the whole article. In the text, cite specific page numbers. For article consulted online, include a URL or the name of the database in the reference list entry. Many journal articles list a DOI (Digital Object Identifier). A DOI forms a permanent URL that begins <https://doi.org/>. This URL is preferable to the URL that appears in your browser's address bar.

Reference list entries (in alphabetical order)

Keng, Shao-Hsun, Chun-Hung Lin, and Peter F. Orazem. 2017. "Expanding College Access in Taiwan, 1978–2014: Effects on Graduate Quality and Income Inequality." *Journal of Human Capital* 11, no. 1 (Spring): 1–34. <https://doi.org/10.1086/690235>.

LaSalle, Peter. 2017. "Conundrum: A Story about Reading." *New England Review* 38 (1): 95–109. Project MUSE.

In-text citation

(Keng, Lin, and Orazem 2017, 9–10)

(LaSalle 2017, 95)

WEBSITE CONTENT

Reference list entries (in alphabetical order)

Bouman, Katie. 2016. "How to Take a Picture of a Black Hole." Filmed November 2016 at TEDxBeaconStreet, Brookline, MA. Video, 12:51. https://www.ted.com/talks/katie_bouman_what_does_a_black_hole_look_like

Google. 2017. "Privacy Policy." Privacy & Terms. Last modified April 17, 2017. <https://www.google.com/policies/privacy/>

Yale University. n.d. "About Yale: Yale Facts." Accessed May 1, 2017. <https://www.yale.edu/about-yale/yale-facts>

Citare în text

(Bouman 2016)

(Google 2017)

(Yale University, n.d.)



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Reference list entries (in alphabetical order)

Manjoo, Farhad. 2017. "Snap Makes a Bet on the Cultural Supremacy of the Camera." *New York Times*, March 8, 2017. <https://www.nytimes.com/2017/03/08/technology/snap-makes-a-bet-on-the-cultural-supremacy-of-the-camera.html>

Mead, Rebecca. 2017. "The Prophet of Dystopia." *New Yorker*, April 17, 2017.

Pai, Tanya. 2017. "The Squishy, Sugary History of Peeps." *Vox*, April 11, 2017. <http://www.vox.com/culture/2017/4/11/15209084/peeps-easter>

In-text citation

(Manjoo 2017)

(Mead 2017, 43)

(Pai 2017)

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“CAROL I” NATIONAL DEFENCE UNIVERSITY PUBLISHING HOUSE

Layout editor: Gabriela CHIRCORIAN

The publication consists of 100 pages.

“Carol I” National Defence University Printing House

Șoseaua Panduri, nr. 68-72, sector 5, București

E-mail: editura@unap.ro

Tel: 021/319.40.80/215