The Russia-Ukraine Conflict, Breakdown of US/West-Russia Relations and Environmental Security in the Arctic and the Baltic Sea Region

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Abstract

This paper examines the intersection of the Russia-Ukraine Conflict, the breakdown of US/West-Russia relations, and the environmental security in the Arctic and Baltic Sea Region (BSR). Russia's "special military operation" against Ukraine launched in February 2022 led to the US-led West and NATO's unrestrained sanctions and equipping Ukraine with lethal aid for a counter-offensive, disrupting relations with Russia. The conflict caused severe humanitarian crises and environmental damage with potential spillover effects on neighbouring areas. While conflict-induced geopolitics and humanitarian crises gain more attention, the transboundary environmental security consequences in the environmentally vulnerable Arctic and BSR are overlooked. The suspension of Russia, uniquely positioned as the indispensable state in the Arctic and BSR, from environmental governance institutions hampering cooperation and scientific research collaboration vital for a sustainable future. Therefore, being a silent victim of conflict with unknown, damaging and planetary-scale security implications, the environment drives an urgent ceasefire and environmental peace-building process to save humanity and the planet.

Keywords: Arctic, Baltic Sea Region, Environmental security, Geopolitics, NATO, Russia-Ukraine Conflict, US/West-Russia Relations

Introduction

Russia launched its "special military operation" (SMO) against Ukraine on 24 February 2022, when the world has not yet recovered from the COVID-19 pandemic that wreaked havoc and created a global humanitarian and economic crisis. Putin cited his action as securing the Russian-speaking people of Donbass from the constant attack by Ukraine's armed forces since the 2014 crisis. The conflict

caused the US-led West and NATO to impose unrestrained sanctions on Russia, breaking relations down to the lowest point and equipping Ukraine with lethal aid for a counter-offensive. After a year, the Russia-Ukraine conflict continues with no end in sight, as if US Senator Lindsey Graham said Ukraine "will fight Russia to the last Ukrainian".

The conflict caused geopolitical changes and enhanced great power rivalry that may have regional and global implications. While geopolitics and humanitarian crises gain more attention, the environmental security consequences with spillover effects on the environmentally vulnerable neighbouring and fast-changing Arctic and Baltic Sea Region (BSR) due to climate change, global warming, ice melting and permafrost thawing are overlooked.

The conflict generated massive environmental destruction on a scale that can potentially make the planet a victim, and its lasting effects in Ukraine are "threatening to create a toxic legacy for generations to come" (UNEP, 2023). Environmental problems transcend nation-state boundaries and do not respect national interests. Therefore, this paper argues that the conflict-induced environmental damage in Ukraine can cause spillover effects in the adjacent ecologically fragile Arctic and Baltic Sea Region (BSR), facing unprecedented changes and severe environmental security concerns considered global commons. As a uniquely positioned indispensable state in the region, Russia's suspension from multilateral forums like the Helsinki Commission (HELCOM) and the Arctic Council is hampering regional environmental cooperation, governance and scientific research collaboration vital for the success of previous mitigation efforts for a sustainable future.

The changing context raises concerns about the implications of the Russia-Ukraine conflict, the consequent breakdown of US/West-Russia relations for the environmental security in the Arctic and BSR and the prospects of the environmental drives for an urgent ceasefire, peacebuilding and cooperation. Using relevant literature from International Relations, global environmental politics, security studies, environmental security, political ecology and policy documents and reports by media and international organisations such as the UN, HELCOM, and Arctic Council, this paper looks into these aspects in five sections.

The introductory section sets the background and argument to discuss the paper's central theme. The second section presents a conceptual framework drawing from the key dimensions of environmental security literature. The third section discusses the strategic foundations of the Russia-Ukraine conflict and the breakdown of US/West-Russia relations. Section four discusses the transboundary effects of

environmental damage in Ukraine and potential implications for environmental security in the Arctic and BSR. Finally, it concludes that given the transnational nature of environmental problems, as doom-mongers want the war to continue, the environment drives an urgent ceasefire and environmental peace-making to save humanity and the planet.

Environmental Security: A Conceptual Framework

The increased attention on environmental security emerged as part of the rethinking security debate after the end of the Cold War with the German unification in 1989. Understanding environmental security first starts with defining the terms "environment", "development" and "security." The 1987 Brundtland report of the World Commission on Environment and Development (WCED) considers "the "environment" is where we all live, and "development" is what we all do in attempting to improve our lot within that abode. The two are inseparable" (Brundtland, 1987, p. 7). That is, the environment and development are deeply connected. Terriff et al. (1999, p. 119) define the 'environment' as "consisting of all living and non-living components of the planet - the lithosphere, biosphere, atmosphere, and stratosphere." All biological forms depend on the climate and weather, which are crucial to the ecosystem. Any alterations to the environment have the potential to alter climate patterns and natural cycles. Global warming, deforestation, and pollution are examples of environmental problems. It also deals with the internal and external elements influencing all organisms and habitats (Kostova & Sidova, 2020, p. 94).

The concept of security refers to a situation free from threats for individuals, communities, and states (Demir, 2022; Booth, 2014). Security can be viewed as "general physical, social and economic well-being" (Homer-Dixon, 1999, p. 3). It is also understood as a social construct (Vayrynen, 1998). According to Ken Booth (2014, p. 12), "security" includes of three significant elements in the context of politics:

A referent (some person, group, or entity that is threatened); an actual or impending danger to that referent (a threat to which a probability of risk can be assigned); and the desire of the referent to be free from the dangers identified (resulting in strategies to mitigate or escape from them).

In the IR discipline, "security" has been conceptualised in the Westphalian international framework with a narrow focus exclusively on national security, privileging the nation-state as the referent, war as the lone threat, and effective military strategy as the means of protection and survival (Ibid).

However, given the emerging novel challenges since the late 1980s, a broad security perspective departs from the previous view of ensuring security by producing "planet-destroying nuclear weapons systems." It views such strategy as risky and acknowledges the arms race, the possibility of nuclear war, resource competition and global environmental change as significant sources of security threats to the survival and future of humanity and the ecosystem. Therefore, attracts an urgent global collective response for ensuring environmental security (Brundtland, 1987).

To analyse the environmental security of the Arctic and BSR, this paper refers to the environmental security debate in the post-Cold War period by IR theorists to expand the concept. Many argue for redefining security by adding non-traditional threats like poverty, inequality, migration, refugee crisis, organised transnational crimes, and environmental change. They consider both individual and state are in danger that cannot be addressed through the old understanding and defence mechanisms alone and call for changes in value and referent object (Buzan, 1991; Dalby, 2009, 2022; Imber, 1994; Dyer, 2001; Homer-Dixon, 1994, 1999).

Barry Buzan and Ole Wæver (1993) proposed in the 1990s the securitization theory that explains processes "in which the socially and politically successful "speech act" of labelling an issue a "security issue" removes it from the realm of normal day-to-day politics, casting it as an "existential threat" calling for and justifying extreme measures". Securitization involves many referent objects related to the economic, environmental, political, military or societal sectors they belong to (Williams, 1998, p. 435).

Terriff et al. (1999, p.118) argue, "There are essential differences with respect to what is being secured, what it is being secured against, who provides security, and what methods can be undertaken to provide it." As a result, since the end of the Cold War, the concept of security has been expanded to add other "referents, dangers, and strategies" (Booth, 2014, p. 12). Rethinking allowed scholars to explore issues like poverty, inequality, environmental damage, patriarchy, autocracy, cultural imperialism, etc apart from traditional agenda domains like interstate conflict as legitimate concerns for Security Studies (Ibid). Environment rather than state becomes the referent object in the notion of environment security. However, the role of state remains in addressing environmental security issues affecting humanity.

Environmental security is a contested concept diversely defined and interpreted. It is a normative concept that covers issues previously not discussed, linking with security questions, but focuses on novel phenomena, including "the implications of

terrain and vegetation for military tactics, the influence of geography on strategic thinking" (Terriff et al., 1999, p.119) or resources competition or war, anthropogenic pressures on renewable resources. Environmental security refers to striking a balance in the dynamic interaction between humans and nature. According to J. Broadus and R. Vartanov (1991, p. 14 cited in Zebich-Knos, 1998), "environmental security is the reasonable assurance of protection against threats to national well-being or the common interests of the international community associated with environmental damage".

Similarly, Jon Barnett (2020, p. 247) defines environmental security as "The assurance that individuals and groups have that they can avoid or adapt to environmental change without critical adverse effects." Barnett sees human and natural processes induced "short and long-term changes in biological, physical, and chemical components and systems" as environmental change. He interprets environmental security in seven main categories of meanings. These include 1. the anthropogenic impacts on the environment; 2. the environment impacts of military-industrial complex, including conflict; 3. environmental change, a common security problem to all states that require joint action; 4. a national security threat; 5. a potential cause of violent war; 6. a risk to human security; and 7. an issue of securitization (Barnett, 2001, p. 8; 2009, p. 554; 2020, p. 248). Given the traditional concerns with state autonomy, measures to reduce environmental degradation can trespass sovereignty and form a security risk (Terriff et al., 1999, p. 118).

The IR perspectives of realism, liberalism, and constructivism explain a complex link between environment and security. Environmental security can be approached in various theoretical premises, linking it with sustainable development, political economy, human security, justice, war, peace and cooperation. In these approaches, the referent objects include both non-state and state with different interpretations and implications of levels of analysis. The lack of access to resources, war potential, damage to livelihood, destruction of infrastructure, displacement, and deprivation due to developmental intervention in nature, disasters and conflict are interpreted as sources of security threats (Liebenguth, 2022; Kostova & Sidova, 2020; Floyd & Mathew, 2013; Barnett, 2009; Homor-Dixon, 1994).

Viewing from a sustainable development perspective, the "development that meets the needs of the present without compromising the ability of the future generations to meet their own needs", which is the basis of human development and security, signifies environmental security. Because the link between poverty, inequality, and environmental degradation necessitates economic growth that would

be socially and environmentally sustainable (Brundtland, 1987). Environmental stress results in deforestation, soil erosion, land degradation, overexploitation and water resources contamination, fish stock decline and food chain contamination (Zebich-Knos, 1998), affecting human health and economic well-being.

Human security point of view argues that environmental degradation threatens human life, livelihood, survival and dignity. Environmental security is one of the seven broad categories of human security: personal, political, economic, health, environmental, food, and societal (UNDP 1994: 22-25). Human security, broadly defined as "freedom from fear", "freedom from want", and "freedom from hazard impacts", correlates with risks from violent war, developmental outcomes and environmental degradation (UNDP, 1994, p. 3). The 1994 Human Development Report of UNDP states:

> *Human security is people-centered. It is concerned with how people live and breathe in a society, how freely they exercise their many choices, how much access they have to market and social opportunities-and whether they live in war or peace."… "Human security is not a concern with weapons – it is a concern with human life and dignity (UNDP 1994: 23).*

The sources of non-traditional threats to human life, rights and choices, and dignity are multiple, not only from the military but development also (Usha, 2016).

The premise of the link between environmental degradation and violent war is that environmental stress and resource scarcity generate violent wars such as conflict, terrorism, and diplomatic and trade disruption. Resource scarcity can exacerbate war potential prevails due to other reasons (Homer-Dixon, 1999). For instance, the insecurity due to water scarcity can cause war (Asthana, 2022). The anthropogenic pressures and catastrophic consequences impact water security, broadly ensuring access to clean water for everyone at present and future generations for a healthy and quality life (UN-Water, 2021). Water security is affected by urbanisation, socio-economic changes, population growth, climate change, and growing energy needs put pressure on water resources. Achieving water security is a key to sustainable development, as water is crucial for human life's survival. "Water security promotes environmental protection and social justice and deals with the consequences of poor water management" (Mishra et al., 2021, p. 5).

Today, climate change is recognized as one of the important threats to global environmental security. Regarding different conceptions of climate change and security connection located in various security discourses, McDonald (2018, 154) observes "frameworks of meaning with different conceptions of whose security is

at stake; what threatens security; which actors are capable of or even responsible for providing security; and through what means." The Intergovernmental Panel on Climate Change (IPCC) Report (2022) claims climate change threatens human well-being and the planet's health.

The updated discussion of environmental security in the Anthropocene geological epoch concerns the scale and speed of the earth's transformation and humanity's role (Dalby, 2022). The actions of humans cause an existential threat to the planet Earth. Many suggests the inextricable environmental and human security linkage must be prioritised in the international crisis response (Rawtani et al., 2022). Environmental security considers gender due to the disproportionate impact of environment-generated insecurities on women (Detraz, 2014; Usha, 2016).

Recently, scholars have examined the linkage between the environmental and human systems and the role that natural resources and the environment play in the three stages of the war life cycle: pre-war, during the violent war, and post-war (Matthew & Nizkorodov, 2022). Before the war, environmental factors contributing to war and prevention of escalation to violence will be the goal. Minimising the impact of war on the environment will be the priority during the war. After the war, post-war recovery is required in humanitarian, economic, and environmental sectors and focuses on the role of the environment in peacebuilding (Bruch et al., 2023). Carl Bruch, David Jensen and Monika Emma (2022, p. 175-176) argue environmental peacebuilding is an essential framework for post-war reconstruction. They state:

> *Environmental peace building is the process of governing and managing natural resources and the environment to support durable peace. It includes efforts to prevent, mitigate, resolve and recover from violent war and involves renewable natural resources (such as land, water and fisheries), non-renewable natural resources (such as minerals, oil and gas), and ecosystems (including climate change and ecosystem services). It comprises and links diverse concepts and activities, such as governing natural resources and sharing benefits in a transparent manner to sustain peace and build confidence between stakeholders, preventing or reducing environmental threats to human health and livelihoods caused by violent war, using shared natural resources as an entry point for dialogue or as a basis for cooperation and trust building between divided groups and developing natural resources in a war-sensitive manner.*

Today, environmental security has entered the political lexicon of various governments worldwide and on the agenda of international organizations like the UN Security Council, EU, NATO, etc., departing from state-centric transnational governance wherein political elites are the main securitizing actors. Against the backdrop of the above framework, the trajectory of risks generated by the Russia-

Ukraine war and their implications for environmental security in the Arctic and BSR regions are examined.

The Russia-Ukraine Conflict and Decline of US/West-Russia Relations: Strategic Foundations

Russia's "special military operation" in Ukraine on 24 February 2022 brought all the blame on Russia alone for the responsibility to escalate the situation to a military conflict. The US/West condemned the conflict as Russia's "unprovoked," "unjustified", and "unlawful" war of aggression in Ukraine. The crucial role the US, especially the neoconservatives, played in provoking the current avoidable conflict cannot be overlooked. Showing full sympathy for Ukraine, US President Joe Biden called names on Putin, such as "a murderous dictator", "a pure thug", and "butcher", and accused Putin of having a "craven lust for land and power." He declared him a "war criminal" and stated, "For God's sake, this man [Putin] cannot remain in power" (Biden, 2022), sounding a desire for a regime change in Russia, though he later voiced it as a "moral outrage". John Bolton (2022), National Security Adviser to former US President Donald Trump, asserts that regime change in Russia is necessary for long-term prospects for security and peace in Europe and says, "Putin Must Go: Now Is The Time For Regime Change In Russia."

Russian President Vladimir Putin declared that his action in Ukraine aimed to liberate the people in the Donbasss region, which includes the ethnic Russian-dominated breakaway republics of Donetsk and Luhansk, where people had been living under "humiliation and genocide" perpetrated by the current Ukrainian government, to demilitarize and denazify Ukraine and protect Russia's territorial integrity, sovereignty and its citizens from NATO threat. He denied any intention to invade Ukraine (Putin, 2022).

Although the competing propaganda and strategic narratives from Russia and the West make it difficult to ascertain the truth, a retrospection to the US/West Russophobic strategies and NATO's relentless expansion to Russia's borders encircling it show how things got to the Russia-Ukraine military conflict. Jack F. Matlock Jr., the US Ambassador to the USSR during 1987-1991 in the Gorbachev regime, said that the misguided NATO expansion to the East "may go down in history as the most profound strategic blunder made since the end of the Cold War. … What Alas, the policies pursued by Presidents George W. Bush, Barack Obama, Donald Trump, and Joe Biden have all contributed to bringing us to this point" (Matlock, 2022), i.e., the conflict that has grown into a US-NATO proxy war against Russia in Ukraine.

An introspection of the US-led West's strategic positions on and policies towards Russia, such as neo-liberal democratisation and transition to a market economy since the end of the Cold War in 1989, contains an element of containment and othering or exclusion of Russia, especially from the European security order, testifies that truth is the opposite of Western claims. When Mikhail Gorbachev introduced liberal democratic reforms of perestroika and glasnost in the Soviet Union and requested funds from the US/West for economic reforms, it is relevant to note the former US Secretary of the Treasury, Nicolas Brady, advised then-President George Bush to deny aid for keeping the Soviet Union economically weakened and a "third-rate power" (Gessen, 2023).

After the Soviet disintegration, the US celebrated the Cold War victory and self-proclaimed as the sole superpower. In his State of the Union Address in 1992, former US President George H. W. Bush rejoiced, "By the grace of God, America won the cold war. … It's a kind of roll-call of honor. For the cold war didn't "end" -- it was won. … "A world once divided into two armed camps now recognizes one sole and pre-eminent power, the United States of America" (Bush, 1992). That unipolar moment led to the "rules-based" New World Order led by America. Thereafter, former US National Security Advisor Zbigniew Brzezinski designed the Euro-Atlantic imperial roadmap of materialising the US hegemonic ambitions in Eurasia. It focused on controlling the Eurasian landmass, encirclement and containment of Russia and dragging Ukraine, a "geopolitical pivot," to the pro-Western camp to prevent Russia's resurgence "to become a powerful imperial state, spanning Europe and Asia" (Brzezinski 1997: 46).

Referring to former US Defence Secretary and Vice President Dick Cheney, Robert Gates, former US Defence Secretary revealed, "When the Soviet Union was collapsing in late 1991, Dick wanted to see the dismantlement not only of the Soviet Union and the Russian empire but of Russia itself, so it could never again be a threat to the rest of the world" (Gates, 2014, p. 165). This shows the US political elite's desire for Russia's destruction.

The US/West treated Russia as a defeated power. Contrary to Russia's expectation of an undivided "Common European Home", they argued for a "Europe, whole and free" security order, excluding Russia (Usha, 2020). The US/West positions on Russia reflect a dichotomization of "Us" and "Them". They viewed the weakened Russia's resurgence as threatening American strategic interests and intended to prevent its rise as a global power. The US/West wanted to position Russia as a weak and isolated power in the post-Cold War global order, thinking "the Russian phoenix won't rise again" (Cohen, 2009, p. 163).

The US-Western scheme of post-Cold War strategies to weaken Russia includes NATO's eastward expansion, democracy promotion, and regime change through colour revolutions. In 2019, the RAND Corporation developed a plan to weaken and isolate Russia in its report entitled *Overextending and Unbalancing Russia*. It lists several cost-imposing measures to weaken and isolate Russia geopolitically, ideologically, economically and culturally. To exploit Russia's biggest vulnerability, providing lethal aid to Ukraine without provoking wider conflict is explained as a measure carefully calibrated to impose high costs on Russia (Dobbins et al., 2019). The current Ukraine conflict reflects that RAND's strategies are under implementation. The US and NATO view Russia as their arch-enemy. The intensified US/NATO-Russia geopolitical rivalry today turned Ukraine into the battled field of US/NATO's proxy war against Russia in the name of European security and protection of the "free world" and the "rules-based" world order.

There were constant efforts to bring Ukraine to the Western camp. In 2008, Ukraine and Georgia were invited to join NATO at its Bucharest summit. Russia opposed the move and considered expansion of NATO to Ukraine and Georgia a potential military threat to Russia. The US/West invested hugely in Ukraine and supported pro-western political parties to come to power. The Orange Revolution of 2004 and the 2014-2015 Euromaidan protests were such attempts. The Orange Revolution in Ukraine in 2004-2005 with the support of the US/West to install the pro-Western government of Viktor Yushchenko. The US/Western hands were visible in the Euromaidan protests in Ukraine in 2014-2015 that overthrew President Victor Yanukovich's democratically elected government of and installed pro-US-west Far-Right leadership. The Assistant Secretary, Bureau of European and Eurasian Affairs, Victoria Nuland's testimony 4 March 2015 before the US Senate Foreign Relations Committee testifies the aim of US involvement in Ukraine is "about protecting the rule-based system across Europe and globally. … our 25-year American investment in the prospect of a Europe whole, free and at peace" (Nuland, 2015).

Civil war continued for several years between the Ukrainian government forces and Russian separatists in the ethnic-Russian-dominated Donbass region, Ukraine's industrial centre, when the two provinces there, Donetsk and Luhansk republics, declared independence from Ukraine. Many people have been killed, and refugees have flown to Russia. An acute humanitarian crisis and political instability emerged in Donbass (Usha, 2016). The Minsk-I and Minsk-II agreements signed in 2014 and 2015 did not end the conflict. The US and the West accused Russia of violation of the accords. They demonized President Putin as US Senator John McCain alleged:

> *Vladimir Putin is an evil man. There is no better word for him. And he is intent on evil deeds, which include the destruction of the liberal world order, its values, its institutions. The world order that the United States led and defended … has brought more stability, prosperity and freedom to humankind than has ever existed in history (MacCaine, 2018, p.794).*

The Far-Right Ukraine government continued shelling in Donbass. Not many reports were available in the mainstream media about what was happening to Donbass. Russia was providing humanitarian assistance to the Donbass region. The US/West's support and promise of NATO membership to the Ukraine government continued.

When Russia recognised the Western hypocrisy and double standards, it began asserting independent policies contrary to the West's expectations. It grew into a collision course between Russia, the United States and Europe, the culmination which could be seen in the 2014 Ukraine crisis (Lukin, 2014). After former US President Bill Clinton rejected President Vladimir Putin's request to join NATO in 2000 and NATO's relentless eastward expansion by adding Baltic states as members in 2004, Putin condemned NATO expansion at the 2007 Munich Security Conference. He questioned, "We have the right to ask: against whom is this [NATO] expansion intended? And what happened to the assurances our Western partners made after the dissolution of the Warsaw Pact? Where are those declarations today? No one even remembers them" (Putin, 2007).

Putin emphasises this concern about NATO expansion in his 2021 article that justifies the inevitability of military action, "Step by step, Ukraine was dragged into a dangerous geopolitical game aimed at turning it into a barrier between Europe and Russia, a springboard against Russia... There was a need for the 'anti-Russia' concept, which we will never accept" (Putin, 2021). Putin justified the "special military operation" in his address to the nation on 21 February 2022: "A year ago, to protect people on our historical lands, to ensure the security of our country, to eliminate the threat that came from the neo-Nazi regime that developed in Ukraine after the 2014 coup, a decision was made to conduct a special military operation" (Putin, 2022). After the conflict turned one year, he blamed the US-led West's NATO relentless expansion to its borders, ignoring Russia's security concerns that prompted military action, the ultimate way to defend Russia and its people (Putin, 2023).

The US/West responded with unprecedented cancel culture and unrestrained anti-Russian sanctions. The EU, NATO and the US imposed punitive sanctions on individuals belonging to President Vladimir Putin's inner circle, the Russian economy and businesses, cultural products, and everything and anything related to

Russia. They banned Russian media and blocked news portals, including the internet, from Russian sources, citing these as hybrid war sources. Information about the war is predominantly available in the US-Western media. One-sided pro-Western narratives and anti-Russian propaganda are dominant in the international media. The availability of different opinions and contradictory positions is restricted. Besides, they poured billions of financial assistance and military aid with lethal arms and ammunition into "innocent" Ukraine, fighting for the free world's security and to defend its sovereignty, territory and democracy from Russian aggression. The initial agreement framework between Russia and Ukraine to end the conflict and assurance that Ukraine would not join NATO failed due to the US and UK's objections pointing to the Western desire for a regime change in Russia by overthrowing Putin.

The current Russia-Ukraine conflict confirmed the change in the world order from unipolar to multipolar. The US-led collective West's relations with Russia have been hampered, so the workable relation may not return soon. After a year of the war, Putin blamed the US and NATO for the war. Russia left the vision of "greater Europe" and is trying "de-Westernization", "de-dollarization," and cooperation with countries in the Global South in an attempt to build a multipolar world.

According to Dmitry Trenin, the failure of Western integration of Russia and the ongoing proxy war in Ukraine against the US and NATO led Russia to make the biggest geopolitical shift in 300 years comparable to Peter the Great's reform era in its significance. He says:

> *For the foreseeable future, the universe of Russia's foreign policy will remain divided in two large parts: the house of foes, including Europe, North America, and the rest of the Anglosphere, and the house of friends elsewhere. The dividing line between the two is a country's position in relation to the sanctions regime against Russia (Trenin, 2023).*

President Joe Biden stated that the West was ready for a long-term confrontation with Russia, as expressed at the NATO summit in Vilnius in 2023. The Western interest is in the victory of Ukraine at any cost, including confrontation with Russia. Aslund et al. (2021) observes:

> *Ukraine's success in its fight against Kremlin aggression is in the US national interest for at least three reasons: Russia's war is against the West, not just Ukraine; the future of a rules-based international order depends on Russian withdrawal from Ukraine; and the United States has a moral commitment to both Ukraine's fight for independence and democracy in general.*

Ukraine's desire for membership in NATO has not been fulfilled yet.

Fyodor Lyukanov (2023) suggests that "a new geopolitical status quo is needed to make confrontation more or less safe." The contradictory perceptions of Russia as a revanchist and revisionist power by NATO and NATO as an expansionist bloc by Russia do not help "any path toward a sustainable and manageable conflict" (Ibid).

Recently, responding to the *Washington Post's* Editorial Board question about the Ukraine conflict, "how has the war led NATO to recalibrate its defence posture and doctrine?" NATO Secretary General Jens Stoltenberg stated that "the war didn't start in 2022. The war started in 2014. And since then, NATO has implemented the biggest reinforcement of our collective defence since the end of the Cold War" (Editorial Board of *Washington Post,* 2023). Now, Stoltenberg warns if Ukraine stops fighting, "their country will no longer extend," and peace depends on Russia stopping the war. But he assures that Ukraine will eventually become a NATO member; therefore, NATO must prepare for a "long war" (*Kyiv Post,* 2023, 17 September). Obviously, the US/NATO policy towards Russia changed to a grand strategic offensive to gain absolute victory over it. As a Veteran US diplomat, Chas Freeman, said in an interview, "The US is fighting Russia "to the last Ukrainian" (Mate, 2022, March 24).

The breakdown of the US/West Russia relations and great power rivalry confirm the second Cold War-like division/confrontation between the US/West and Russia, and the conflict is unfolding as a global disaster. The decline of the US/West-Russia relations poses challenges to addressing war-induced environmental damage-related problems, even threatening the planet.

Environmental Security Implications of Conflict for the Arctic and BSR

The Russia-Ukraine conflict turned the already ecologically fragile Arctic and BSR into geopolitics, climate change and environmental security hotspots. Since humanitarian crises gain more significance during conflict and war, environmental security implications are generally overlooked. As informed by the theoretical approaches to environmental security and due to the transboundary nature of environmental threats, many potential short and long-term regional and global repercussions related to the Russia-Ukraine conflict may have implications for the Arctic and BSR. Ukraine provides ecosystem services and food vital for Europe and globally. Therefore, given the complex environmental problems, the Ukraine conflict became a litmus test for dealing with risks and crises in the quickly changing Arctic and BSR. The proximity of the Arctic and BSR to the conflict zone, existing severe

environmental threats and inadequacy in mitigation efforts, effects of geopolitical change, exclusion of Russia and strategic dilemma and the possibility of aggravation of environmental risks are crucial factors that help understand the potential implications of the Russia-Ukraine conflict for the environmental and human security in the Arctic and BSR.

Proximity of the Arctic and BSR to the Ukraine Conflict Zone

The Arctic is the polar region in the planet Earth's northernmost part. This region includes landmass, ocean and nearby Atlantic and Pacific oceans. The Baltic Sea and the surrounding areas are located at the edge of the wider Arctic region. The Baltic Sea is also an arm of the Atlantic Ocean. It could be viewed that the BSR is an enclosed region within the Arctic region. The conflict-ravaged Ukraine is situated near BSR and in the adjoining Black Sea region near the Atlantic Ocean and the North Sea.

The Arctic and BSR are strategic military regions significant for the NATO countries and Russia. Shipping routes, energy projects, deposits of natural resources, transit checkpoints, etc., make these regions strategically crucial for all stakeholders and littoral states of the Arctic Ocean and Baltic Sea. The Arctic has eight states: the USA, Russia, Denmark, Norway, Finland, Sweden, Canada and Iceland. The BSR include eleven states: Russia; Germany; five Scandinavian countries of Sweden, Denmark, Norway, Finland, and Iceland; three Baltic States of Estonia, Latvia, and Lithuania; and Poland. It is important to note that many of the countries in these regions are among the world's most developed states.

The following map helps us understand the strategic significance and complexity of the Arctic and BSR in the context of the Russia-Ukraine conflict.

Map of Arctic Showing Ukraine and Baltic Sea Region

Source: https://www.geographicguide.com/arctic-map.htm

It has already been observed that the environmental consequences of the Ukraine-Russia conflict spread beyond Ukraine. The impact of conflict on the EU's eastern neighbourhood from geopolitical, geoeconomic and demographic points of view has been assessed (Secrieru, 2022). The conflict affected the world economy and food security and triggered geopolitical changes (Pereira, 2022). The conflict adversely affects air quality, and pollutants can spill over gradually to neighbouring and distant areas (Meng et al., 2023). It has been noted that the effects of conflict with explosions in Russia and neighbouring Moldova spread beyond

Ukraine (Plokhy, 2023). The air emission can increase the deposits of per- and polyfluoroalkyl substances (PFAS), which can be local and long distances (Koban & Pfluger, 2022).

Exacerbation of Existing Environmental Security Threats and Implications for Mitigation

The Arctic is undergoing rapid climate change-induced transformations such as sea warming, ice melting, decline in snow cover, precipitation changes and permafrost thaw. The global warming-induced thawing of permafrost soil in the Arctic can release thousands of years old dormant viruses and bacteria and generate highly disruptive pandemics like COVID-19 in the near future. Climate change impacts marine ecosystems, ocean circulation, flora and fauna, the environment, socioeconomic systems, infrastructure and indigenous communities (Stephen, 2018; Arctic Council, 2023). The environmental problems in the Arctic and BSR have been recognised as transboundary issues and have become global commons as the changes in the region affect the whole world. Many problems need considerable finances and time to solve effectively (Voronkov, 2015).

Studies found plastic pollution in the Arctic Ocean and the region due to wastes from chemical feedstocks and fuel resources linked to processing crude oil, natural gas and microplastics in the air, water, and marine environment. The microplastic particles affect the health of humans, animals and the ecosystem through food, air, drinking water and sea ice traps. The studies for more knowledge about its global effects and solution for this issue is progressing (Rhodes, 2018). The climate change impact on the marine ecosystem and the indigenous population's human security is established to a certain extent through past research. Much ongoing research needs collaboration and knowledge among the stakeholders, including Russia, the largest Arctic state.

The Baltic Sea is considered as one of the most polluted oceans in the world. The total water volume makes it the second-largest brackish water basin in the world. It is located in Northern Europe's strategically important and geopolitically complex BSR. The Baltic Sea has a high pollution level from multiple sources from nine coastal states and five non-littorals, forming a catchment area (Korpinen et al., 2010). The marine environment Baltic Sea is affected by anthropogenic interventions of tourism, transportation, fishing and land-based activities (Kern, 2011) that generated ecological problems such as eutrophication, loss of biodiversity, marine pollution such as oil spilling, marine littering, bilge dumping, and agricultural, municipal,

and industrial waste, etc., which has a multifaceted impact on humans and non-humans. Baltic sea ecosystem has a role in public health (Storie et al., 2021).

Therefore, the countries in the region mitigate environmental problems through domestic policies and regional and international cooperation and governance. In the Arctic, the important forum for cooperation and governance is the Arctic Council, established in 1996 based on the Ottawa Declaration. The countries engaged in the Arctic are keen to keep the region as a zone of peace, cooperation, and dialogue for its sustainable future. Several joint research projects, science diplomacy and summits are regularly conducted through the Arctic Council.

In the BSR, the Council of Baltic Sea States (CBSS), formed in 1992 and HELCOM, established in 1974, are the leading multilateral platforms for addressing environmental issues and governance. Russia cooperates with both forums. The Russian Federation adopted the 1992 Helsinki Convention in October 1998. Russia is important in the Baltic Sea's environmental protection (Tynkkynen, 2018). The HELCOM's goals are to safeguard the marine environment of the Baltic Sea, maintain and restore the region's ecological balance, and confirm sustainable natural resource use (Makarychev & Sergunin, 2017). The Baltic Sea Action Plan is under implementation. Since all bordering countries contribute to pollution, coordinated efforts by all countries in the region are required to address the issues successfully (Elmgren et al., 2015). The BSR is considered a region that has a successful model of environmental protection and cooperation (Volchetskaya et al., 2018).

Russia is uniquely positioned as an indispensable state in the Arctic and the Baltic Sea Region. Although Russia acted constructively in institutions like CBSS covering the whole BSR and no longer posed military threats to neighbours earlier, the EU interests and NATO enlargement excluded Russia, especially after the Ukraine crisis in 2014. There was no CBSS summit after that. At HELCOM, Russia showed interest in soft security and cooperation in the region, but the EU dominance in the BSR made Russia's efforts problematic. The NATO expansion and the opposing security interests of Russia and NATO caused the remilitarization of the region with the potential of re-nuclearization in future. As Elena Kropatcheva (2017, p, 92) points out, "security dilemmas, mistrust and balance-of-power games have become predominant in the BSR" before the Ukraine conflict. The West excludes Russia in cooperative engagement in BSR after the Ukraine conflict.

Russia, one of the major powers in the region with a vast land mass and rich natural resources, plays a vital role in global environmental politics. Russia's dominance in the region as the biggest Arctic country (Hønneland, 2020), China's

aim to increase engagement through the "Polar Silkroad Project" (Ford et al., 2021), and the NATO membership to Finland and Sweden (Erlanger, 2023) are raising the region's importance to Arctic and non-Arctic powers to engage in the region. For instance, India's Arctic interest is related to the potential impact of changes in the Arctic on its economy, energy, water and food security, "weather conditions and monsoon patterns, coastal erosion and glacial melting" in the Himalayas, which is considered as "third pole" (Government of India, 2022).

The Russia-Ukraine conflict caused implications for environmental cooperation and mitigation efforts. In the Arctic and BSR context, the policies or strategies adopted by the EU and the West are relatively contradictory to Russia's perspectives. However, the West cannot solve any global environmental issues without Russia, which can play a constructive role in saving this planet. On the one hand, the West talked about cooperation through the ecosystem approach for environmental protection in BSR. On the other hand, they aimed to isolate Russia at the regional level of cooperation, calling it a "state sponsor of terrorism" and "using terrorist means". Such strategic narratives reflecting Russophobia have created a complex situation for both parties in marine environmental protection in the Arctic and BSR (Diesen, 2022).

Effects of Geopolitical Changes

After the conflict in Ukraine, the geopolitical situation drastically changed in the Arctic and Baltic Sea regions. Since the West's main argument is that Russia's actions are to blame for the conflict in Ukraine and its repercussions. The NATO expansion to Sweden and Finland divided the region between NATO and Russia. Great power rivalry and militarization are growing in the Arctic and Baltic in the shadow of the Russia-Ukraine conflict. A new cold war-like situation has emerged in the region. The new Cold Conflict is different but far more dangerous than the previous one between the West and the Soviet Union. NATO and Russia compete to consolidate their regional military footprints and resource control. When NATO, which was the Soviet Union's enemy in the Cold Conflict era, defines Russia as a threat and a competitor, the actions and reactions of NATO and Russia matter to security politics.

Expanding NATO created significant problems for Russia. In Russia's geopolitical backyard, NATO is set to tighten its grip on the Baltic Sea, complicating a vital transit route for the Russian navy. According to Ulrike Franke, a senior fellow at the European Council on Foreign Relations, "[Sweden and Finland] make NATO

much more geographically coherent. The Baltic Sea becomes a NATO lake, which is generally useful, also because of the Arctic's increased importance," (Kayali, 2023). In this context, armed conflict can exacerbate existing risks and bring new threats to the region's environmental security. Many believe the conflict in Ukraine causes environmental setbacks to the Baltic Sea (Vanttinen, 2023).

Littoral states sharing Arctic and Baltic Sea shores heightened military activity, which depicts a potential for military war in the region. Identity perceptions, new economic opportunities, conflicting interests and resource competition also show conflict potential. The Baltic and North Seas belong to the wider Arctic-North Atlantic geostrategic space, stretching up to the Black Sea. Russia sees this space as part of its strategy towards Europe. Russia tries to dominate by establishing strategic space from the Atlantic to the Pacific, an economic and security area. The Northern and Eastern European countries view this region as a source of constant threats and provocations (Swistek & Paul, 2023).

The melting of ice and the warming of the sea in the Arctic open new sea routes. Russia is dominating the Northern Sea Route (NSR). The deposits of natural resources exposed through climate change cause resource competition among stakeholders. The geopolitical rivalry can intensify this competition and disputes over sovereignty rights. Russia's 2023 foreign policy concept emphasises the Arctic as an important area of its strategic engagement. Despite strained relations with the West, Russia finds international cooperation through the NSR necessary to keep the Arctic a genuine "territory of dialogue". (Ministry of Foreign Affairs, Russia, 2023). Therefore, the new foreign policy concept shows that war potential from the Russian side is low.

Exclusion of Russia and Environmental Security Dilemma

The security dilemma after the 2014 Ukraine crisis escalated into conflict, the exclusion of Russia and the growing military competition after the 2014 crisis endangered international relations. The peaceful relations in the High North have turned into a Russian and Western competition. The Russia-West military dialogue stopped. The security dilemma emerged in the Arctic, threatening stability. The security dilemma increases the danger of unintended military conflict due to accidents or misunderstandings (Wither, 2021). Given this security dilemma, the Ukraine conflict has prompted a complex cause-and-effect chain. It disturbs the efforts for mitigating climate change and the green transition in the Arctic. The short-term adverse consequences will affect the rapid pressures to reverse climate

decisions brought by the self-sufficiency needs and the raw materials supply, for instance, concerning peat harvesting. The longer term will affect the energy crisis, developing more sustainable production and consumption and accelerating low-emission measures regionally and globally (Odgaard, 2022; DeWitt et al., 2020).

The suspension of Russia from the intergovernmental forums such as The Arctic Council, CBSS, and HELCOM affects cooperation, coordination and interaction among the Arctic and Baltic Sea states. It indicated that NATO defined the Arctic as "a low-tension area that was becoming obsolete and that security dynamics will come to dominate the region" (Odgaard, 2022). Environmental governance has been paralysed since Russia has been suspended in multilateral platforms like the Council of Baltic Sea States (CBSS), HELCOM, Arctic Council, etc. Given that nature and the environment do not alter according to national borders, several measures related to the sustainability of the Arctic require considerable international and regional cooperation. Before the Russia-Ukraine conflict, multilateral platforms like the Arctic Council engaged in activities to mitigate the Arctic region's climate and environmental issues.

However, suspending research cooperation with Russia leaves gaps in the Arctic climate change knowledge base. The halting of research on greenhouse gas emissions may impact future global warming. Data from the Russian part of the Arctic is important to understand comprehensively how the Arctic is warming because Russia possesses half of the Arctic landmass. Monitoring climate change is difficult without data on the changes happening to permafrost in Russia. Due to the Russia-Ukraine conflict and the Western sanctions on Russia, a global consortium of permafrost scientists who engaged in a multi-year Arctic-wide monitoring attempt was forced to stop their research (Baker, 2022).

Environmental Security Issues Drive for Restoring Peace and Cooperation

From an environmental justice point of view, environmental security considers the peacebuilding potential of the environment. The conflict-induced environmental impact on human security and sustainable development indicates the urgency to restore peace. The scientific research community also calls for peacebuilding, without which monitoring, data collection, and research are halfway. The environmental security implications call for cooperation with Russia. Nothing is possible without including Russia in addressing multiple Arctic and BSR environmental issues. Therefore, the post-war rebuilding in Ukraine must consider the spillover effect of environmental insecurities in the Arctic and BSR.

The Russia-Ukraine conflict brought the redrafting of the internal law by the International Law Commission, including the new legal protection, i.e., Protection of the Environment in Relation to Armed War (PERAC). The new draft of international law regarding environmental protection considers the wartime destruction of the environment and pollution in armed war-affected states. With this initiative, principles of international law become more obligatory for the conflicting parties. Although the new principles may not be observed during the war, these will be obligatory for all the parties in the post-war context. It has been observed that the new legal Draft principles adopted to address the post-war scenario emphasise "obligations of environmental remediation, liability and cooperation – issues which are generally omitted from legal instruments and are proving rather elusive in the current Russia-Ukraine war" (Karen & Hessami, 2022).

Departing from previous environmental protection rules, the new PERAC principles are much more extensive and cover "the rights of Indigenous peoples, the use of natural resources, corporate conduct in war zones and the effects of conflict on marine areas." (Kaminski, 2023). As experts observed, Ukraine can consider the principles included in post-war reconstruction, and "Ukraine will be a real test of these principles" (Ibid). Thus, environmental problems drive an urgent ceasefire to restore peace and begin post-war reconstruction.

Conclusion

The Russia-Ukraine Conflict, the breakdown of US/West-Russia relations, and the environmental security intersect in the Arctic and Baltic Sea Region (BSR). Russia's "special military operation" against Ukraine launched in February 2022 as a response to Ukraine's military actions in the ethnic Russian-dominated Donbass region since 2014, led to the US-led West and NATO's unrestrained sanctions and equipping Ukraine with lethal aid for a counter-offensive, disrupting relations with Russia. Although the US-led West defined this conflict as "unprovoked and unjustified", and conflict can be justified in no way, a retrospection reveals that it is the outcome of the post-Cold War US/Western strategic thinking and designs aimed to prevent Russia's resurgence as a global power using Ukraine as a geopolitical asset.

The Russia-Ukraine conflict taking the shape of a protracted nature can create potential long-term and unintended consequences for the Arctic and BSR, which are fast-changing due to global warming, ice melting, climate change and thawing permafrost and experience loss of biodiversity, marine pollution, food insecurity, oil spills, waste, water contamination, transportation issues, etc. The conflict is

changing the geopolitical balance, enhancing great power rivalry and militarization in the Arctic and BSR, previously, Russia, NATO and the European Union cooperated as equals to address climate change, marine environmental protection and human security until recently. Now, the West and Russia considered each other enemies whom appropriate measures, including nuclear and hybrid actions, should deter each other. Although the region is peaceful currently, the fears of conflict in the High North Arctic and BSR are also increasing due to resource competition and conflicting national interests of circumpolar states. The joining of neutral Finland and Sweden in NATO and the suspension of Russia from international governance institutions like the Council of Baltic Sea States, HELCOM, Arctic Council, etc, divided the regions between NATO and Russia. A new Cold War situation emerged in the region, confirming the unipolar liberal world order changing to a multipolar one.

Russia's engagement in the Arctic and BSR is significant in addressing many issues. The suspension of Russia, uniquely positioned as the indispensable state in the Arctic and BSR, from environmental governance institutions hampering cooperation and scientific research collaboration vital for a sustainable future. The joint scientific research vital for understanding climate change issues will be affected and aggravate existing risks and create new risks. Russia's Arctic and BSR policies are based on national interests and sovereignty.

The conflict caused severe humanitarian crises and environmental damage with potential spillover effects on neighbouring areas. The conflict created bloodshed, injuries, death, and misery in human lives due to bombing, explosions and destruction. The conflict has affected every aspect of human life. Its impact has reached global and created food insecurity, loss of livelihood, refugees and displacement, water, soil and air contamination and human and environmental insecurities. The environment became the "silent victim" of the conflict.

While conflict-induced geopolitics and humanitarian crises gain more attention, the transboundary environmental security consequences in the environmentally vulnerable Arctic and BSR are overlooked. From an environmental security perspective, the Russia-Ukraine conflict's gravity of impact on the environment and ecosystem needs urgent attention to address the complexities and challenges for a safe and sustainable future not only for Ukraine (local) but for the Arctic and BSR (regional) and the world (global). The environment becomes a silent victim of conflict with unknown, damaging and planetary-scale security implications. The long-term effects of environmental degradation and the gravity of environmental

damage in war-affected areas and beyond are intrinsically linked to human security and a sustainable future. Therefore, the environment drives an urgent ceasefire and environmental peace-building process to save humanity and the planet. H. G. Wells' warning about future grave consequences of conflict reminds "If we do not end conflict, the conflict will end us" may result from the perpetuation of conflict.

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