Sustainable Security: Revolution or Utopia?

Kamila Trochowska-Sviderok[1]

Abstract:

Purpose: This article lays the foundations for the Sustainable Security Paradigm (SSP), which features national security as a holistic and synergistic complex-adaptive system that can integrate various domains of international, social, and individual activity in a long-term, sustainable fashion. The novel paradigm informs the original Sustainable Security Culture Development Cycle (SSCDC) that provides a model of transformation for organizations that wish to act sustainably in the security realm.
Design/Methodology/Approach: The theoretical framework is centered around three pillars, the scientific study of the socio-ecological systems of the Anthropocene, a holistic understanding of security, and the realization of the UN's Sustainable Development Goals. During research, the study adopted the pragmatic, critical world view with the grounded theory approach and employed mixed methods of research. Case studies of the global security consequences of the COVID epidemic, the paradoxes of the 2020 Polish National Security Strategy, and the military impact on environment, provided a cross-cultural and cross-contextual proof of data.
Findings: Contemporary global security paradigm is unsustainable and unjust. Both in security studies theory and security policy at various levels, a shift is imperative. We need to move from a narrow understanding of security (in national security/defense terms) and replace it with a holistic and synergistic system. We also need a re-orientation of philosophical approaches, knowledge systems, principles, values, management practices, behaviors, and governance arrangements to ones that build sustainability in an increasingly interconnected, turbulent, and unpredictable world.
Practical implications: The above allowed to create an operational SSCDC, designed to facilitate the transformation of security and defense organizations into institutions that continually create an environment of sustainable security and just development for all.
Originality/Value: This is the first article that systemizes a comprehensive SSP, accompanied with an original and operational SSCDC.

Keywords: Sustainable security, organizational culture, human security, holistic security, security paradigm, Anthropocene, security and defense policy.

JEL code: F52, M14, Q01.

Paper type: Research paper.

[1]*National Security Department, War Studies University, Poland,*
e-mail: *k.trochowska@akademia.mil.pl*

1. Introduction

"The s*** has hit the fan and it's powering my car."
Robin Williams, *Live on Broadway*, 2002

The recent global climate and health crises have impacted the very core of multiple domains. Most longstanding concepts, paradigms and beliefs are no longer valid; our faith in our ability to control the planet has been undermined. They are not only as dated as brightly-colored suits, but just as ill fitting—like three sizes too small 1989 prom dress. However, it is security that seems to require a revolution most urgently in approach. It is official, the s*** has hit the fan and it is powering our planet towards a growingly uncertain future. There is still massive unpredictability which future are we being propelled towards?

There is a wide array of futures for every taste, provided by a variety of stakeholders. They range from the optimistic 2030 vision of sustainable (and still existing) humanity of the UN 2030 Sustainable Development Agenda (United Nations, 2020a), to the one military alliance pictured in the North Atlantic Treaty Organization (NATO) Allied Command Transformation (2017) Foresight Analysis Report, through the famous Australian National Center for Climate Restoration report (Spratt and Dunlop, 2019) that augurs a climatic cataclysm and the end of humanity as we know it, to a cosmetics industry that has been drastically changed by demographic, climate, and technological megatrends, as forecasted by an international association of beauticians. It may as well be a mix of the global collapse depicted in *Scary Movie 4*, with *Idiocracy*, *2012*, *Gattaca*, *back to the Future* III (Utopia and Dystopia, 2020) and *I am Legend* thrown in for good measure, and then combined with the second season of *Dark* and season one of *The Handmaid's Tale*—with a hint of *Melancholia* (Borgona, 2018). Whatever happens will affect all the biosphere—either benefiting or obliterating a system of which we are an integral part, though not its sole inhabitants (Fagan, 2016).

With the publication of "Blueprint for Survival" (Goldsmith and Allen, 1972), the application of the theory of sustainability to fields other than the one in which it originated—the environment—has seen rapid growth. It has also been an inherent part of non-Western philosophies of sustainable social organization, from the Ecuadorian *buen vivir and the* South African *ubuntu*, to Buddhist *dharmic socialism* and Gandhi's *sarvodaya* (Targanski, 2016), all of which work perfectly, but only selectively and regionally. Other national strategies and action plans aimed at achieving the Sustainable Development Goals are already in place, yet they often amount to little more than platonic ideals. We are dealing with a situation in which even the Russian constitution can claim that "the idea of sustainable development is extremely consonant with the customs, spirit and mentality of Russia" (Russian Federation, 1996), with no evidentiary support whatsoever in strategy or internal policy.

Moreover, during a global pandemic, the USA quit the World Health Organization (Maxmen, 2020), reaffirming that global cooperation in tackling one of humanity's

greatest challenges is merely an option for some. In 2019, global military expenditure was $1917 billion (SIPRI, 2019), exceeding the $29.6 billion spent on global humanitarian aid 64-fold (OCHA, 2020). World militaries are adopting principles of environmental protection and sustainability as "mission enablers," while at the same time leaving a devastating boot print on the environment. For instance, if the Pentagon were a country, it would be the world's 55th largest emitter of carbon dioxide; the US military alone emits more greenhouse gases than Morocco, Peru, Hungary, Finland, New Zealand, and Norway combined (Watson *et al.,* 2020: 161).

Parallelly the second major global player, China, is the world's top renewable energy investor (Lee, 2019). With an economic presence in nearly every continent, they are engaged in a rapidly growing number of resource extraction, energy, agricultural, and infrastructure projects (including roads, railroads, hydropower dams, and mines). These ventures are inflicting unprecedented damage on poorer nations' ecosystems and biodiversity, assisted by these countries' weak environmental regulations and controls (Laurance, 2017). At the same time, the Amazon's commercial deforestation rate (led by Brazil and the Andean Belt countries), has been the fastest in the past decade, and it is predicted that by 2030, we will have squandered a quarter of the "green lungs of the planet" (WWF, 2020). Yet, we have known for decades that planetary boundaries are finite, and that the global system might soon collapse, which it did, in numerous ways. Still, what characterizes the schizophrenic clash between sustainable theory and security practice, are numerous other paradoxes analyzed in the Case Studies section of this research piece.

Therefore, the author proposes laying the foundations of a sustainable security paradigm (SSP) and designing a sustainable security culture development cycle (SSCDC), so as to provide a model of transformation for organizations that wish to act sustainably in the security realm. The practical model featured in this article is based on a critical review of the contemporary security paradigm, which enables the outlining of the essence of the sustainable security concept, and an investigation (through case studies) of the most common paradoxes behind the clash between sustainability and security. The article concludes with a philosophical reflection on the challenges and limitations of sustainability as we know it.

2. Materials and Methods

The main purpose of this article is to outline foundations for an SSP that is "theoretically coherent, empirically verifiable, and practically actionable" (Dolan, 2002) on a collective (regional and national) as well as individual level. The practical outcome is an operational SSCDC, which enables the transformation of security organizations into entities that unceasingly create an environment of sustainable security and just development. The SSCDC was constructed in response to the following research question: How can the sustainable security paradigm be applied in security theory and practice for lasting and systemic cross-scale results? Some auxiliary research questions are as follows:

1. What kind of paradigm shift is needed in security studies and why?
2. What are the problems and paradoxes resulting from the contemporary approach?
3. What is the essence of sustainable security?
4. Which approaches, methods, models, and tools meant to foster sustainability have already been implemented in security theory and practice?
5. What are the philosophical, ethical, and operational problems connected with sustainable security and how can they be addressed?

I address these questions through the application of a three-step research procedure that is based on the pragmatic world view (Creswell and Creswell, 2018: 56), and utilizes a critical theory lens. I adopted the grounded theory approach, employing mixed, non-experimental methods. The research protocol included the following, sometimes parallel and iterative, stages:

Step 1: Systematic, quantitative analysis of the sources. Five major scholarly databases (Google Scholar, SAGE Journals, Scopus, Social Science Research Network and Stockholm Resilience Center (SRC), were combed, using the "sustainable security" command, for peer-reviewed content in the social sciences pertaining to sustainability. I performed a lexical meta-analysis of the first hundred records retrieved in each category using the NVivo 12 Plus software to outline major research streams and related concepts. This returned the following results:

Table 1. *"Sustainable security" search results analysis*

Source	Total number of records found	Number of records analyzed	Major research streams and concepts
Google Scholar	2,640,000	100	Human security, peace, national security, systemic approach, sustainable development, SDGs, food security, resources management, energy security, environmental and climate change, economic dimension, assessment, policy
SAGE Journals	125,169	100	Sustainable development, human and social dimension, food security, dialogue, culture, regional dimension, Asia, South, national security, future
Scopus	18,780	100	Sustainable development, food security, systemic approach, energy security, social dimension, policy, design, globalization, regional dimension, human security, needs, culture and values

Social Science Research Network	1,116	100	Sustainable development, social dimension, human security, human rights, globalization, business, food security, national security, power, government, change, new, science and technology, risk, management
Stockholm Resilience Center	110	100	Food security, goals, biodiversity, biosphere governance, community, resilience, transformation, environmental management, narrative, dependencies, connections, future

Source: *Own coding and content analysis.*

The analysis revealed the extent of scholarly interest in this area of investigation, and how the many dimensions of the sustainability and security issues overlap across the different domains. The most relevant scientific bibliographies, official governmental or international normative documents, audiovisual material pertaining to sustainability science, critical security, organizational culture, security culture, national security and sustainable development policies were also analyzed for interdisciplinary insights. I conducted manual axial coding and further qualitative content analysis with the use of NVivo 12. The emergent concepts and issues were then categorized into the following major research streams:

1. Sustainable development
2. Human security
3. Culture and values
4. National security
5. Environmental security
6. Systemic approach
7. Management
8. Regional and global approaches
9. Resilience
10. Transformation

This allowed me to consolidate and elaborate on the SSP's theoretical base.

Step 2: To empirically test the foundations of the paradigm, I conducted three case studies that overlapped thematically with the results of the first step: a) a case study of the paradoxes of the Polish National Security Strategy of 2020, along with b) the impact of the COVID pandemic on global security mechanisms, and c) a critical analysis of the military bootprint (the impact of defense activities on the environment). These case studies provide sufficient cross-cultural and cross-contextual proof of the unsustainability of the contemporary security approach. Together with the results of the quantitative theoretical analysis from phase 1, it provided an interdisciplinary overview of problems, challenges, and solutions in the fields being investigated.

Step 3: I applied conceptual modeling to create the initial SSCDC, which is meant to operationalize the SSP at the organizational level and to engender practical results and improvement. Further validation, cultural and practical refinement, and policy adjustments are necessary in the subsequent stages of research. They will be conducted in a systematic manner as part of an international, interagency project based on initial research.

3. Research Results and Discussion

Sustainability is a buzz word these days, it is hip, viral, ups your research funding, and puts a human face on any capitalist venture. It is the civilian equivalent of the theory and practice of "terrorism" in security studies three decades ago. As we strive to realize the fundamental ideals of a sustainable world, and to achieve the *Sustainable Development Goals Agenda* of 2030 (United Nations, 2020c) we are guided by our dream of sustainable communities, sustainable peace, sustainable energy, and the encouragement of *The Sustainable Mama Blog* (2020). In its very essence, "sustainability" means the ability to sustain—to exist under, and adapt to ever-changing circumstances (Merriam-Webster, 2021b). In the twenty-first century, it is usually understood in relation to the natural environment and the absorptive and regenerative capacity of the biosphere. It is characteristic of anything that "meets the needs of the present without compromising the ability of future generations to meet their own needs" (UN World Commission on Environment and Development, 1987: 16). It is difficult, though, to hit the sweet spot of sustainability for all, despite its universality, the concept can be interpreted in numerous, often mutually exclusive ways. For instance, from a corporate standpoint, "sustainability is a management approach that is based on the optimum use of both human and natural resources, while being socially responsible (Montiel and Delgado-Ceballos, 2014). Social responsibility is heavily tied to an organization's ethical culture and brand identity. The pricing of commercial goods is also influenced by a corporation's brand reputation (Hartman, 2012: 5). This type of instrumental understanding also resonates in other domains.

In the security and defense realms in particular, sustainability is viewed as a means of realizing operational and strategic, or simply political goals, at best, it seen as an enabler of environmental security. For the more enlightened members of security administrations, it can be "one of the fastest growing businesses in the world, a business where the saying 'It's not personal, it's just business' does not apply" (Derrickson, 2013). For the US Army's top brass, it is a "force multiplier" and a facet of national security, since the absence of environmental sustainability has resulted in a growing wave of political unrest around the globe (Hartman, 2012: 6). It is as if the Chernobyl NPP's directors started a Corporate Social Responsibility Environmental Protection Program (planting 10000 trees around Pripyat?), hoping that it would prevent or mitigate the effects of the 1986 catastrophe. This might seem like a preposterous suggestion, but we will soon discuss some of the real paradoxes that result from governmental attempts to incorporate sustainability into national security

policy that are no less ridiculous.

Nevertheless, this analysis of various approaches to sustainability revealed a light at the end of the tunnel. The application of the SRC's line of reasoning to the field of security studies, has tremendous potential. The Center—a joint initiative between Stockholm University and the Beijer Institute of Ecological Economics at The Royal Swedish Academy of Sciences—is a cutting-edge science facility where the complex challenges facing humanity can be addressed, and the groundwork laid for a thriving and resilient biosphere that ensures well-being for all (Stockholm Resilience Center, 2020). Their major operational paradigm is applying sustainability science to biosphere stewardship is the Anthropocene—a distinct, contemporary, geological period in which human activities have had a formative environmental impact (Merriam-Webster Online Dictionary, 2021a). The aim of their research, education, and policy advisory committees is to create a just world where social-ecological systems are understood and governed with an eye to enhancing human well-being and humanity's ability to deal with complexity and change. The sustainable co-evolution of human civilizations and the biosphere is a long-term project.

Major research themes in this approach to sustainability science for biosphere stewardship in the Anthropocene include complex adaptive systems, resilience thinking, patterns of the Anthropocene, and transformation. They are based on the emergent notion that since we live in the novel geological age, sustainability must be re-defined; that humans not only can, but need, to act in concert with the living systems we depend on (i.e., the biosphere), and within planetary boundaries; and that resilience-oriented thinking, understood as the capacity of a system—be it an individual, a forest, a city or an economy—to deal with change and continue to develop, is the key (SRC, 2020). Resilience is also one of the paradigms that sustainable security culture will be based on, as it rests upon the following seven guidelines provided by Biggs *et al.* (2015):

1. Maintain diversity and redundancy.
2. Manage connectivity.
3. Manage slow variables and feedback.
4. Foster complex adaptive systems thinking.
5. Encourage learning.
6. Broaden participation.
7. Promote polycentric governance systems.

Thanks to the application of the SRC proposals and principles listed above to the security field, sustainable security has a chance to revolutionize the contemporary security paradigm. "If 'development' is used in the current narrow economic sense, associated with the notion of unlimited quantitative growth, such economic growth can never be sustainable, and the term 'sustainable development' would thus be an oxymoron. If, however, the process of development is understood as more than a purely economic process, including social, ecological, cultural, and spiritual

dimensions, and if it is associated with qualitative economic growth, then such multidimensional systemic processes can indeed be sustainable" (Capra and Fonzi, 2014: 381). The same mechanism will be one of the keys to making security sustainable—by widening as well as systemizing the notion of national security.

3.1 Critical Theory and the Revised Security Paradigm

The critical security approach, despite its controversial nature, (Browning and McDonald, 2011) seems to be most promising when it comes to conceptualizing a revised security paradigm. Rooted in critical theory, it does not take any relationships for granted; it analyses on-going processes and explores possibilities for change based on normative choices (Shepherd, 2013). Critical theory provides the descriptive and normative bases for social inquiry, aimed at decreasing domination and increasing freedom in all their forms, emphasizing the concepts of human security and comprehensive security (Shepherd, 2013: 4). It also stresses that the global security paradigm nowadays is unjust. It provides short-term relief and benefits—usually only to dominant groups—instead of long-term solutions. Peace enforcement operations are one example of "the orthodoxy of what is now a post-liberal society" (Forte, 2014), while discrimination against sexual and ethnic minorities or those who are differently abled, while touting a sustainable and egalitarian policy outlook, as is the case with nearly half of the EU-member countries, is another (European Commission, 2019). The critical security paradigm cannot exist without inclusiveness, equality, equity, or a long-term, systemic vision.

Sustainability is just as unattainable without well-implemented diversity and resilience initiatives. It widens security theory's field of enquiry beyond constructivist and feminist security studies, post-structural and post-colonial approaches, human security, green security, insights into securitization theory, and security as emancipation (Shepherd, 2013: 5), to mention some of the research streams in the field. This allows us to not only contest the realist paradigm that is still valid in many national security approaches, but also to expand and systemize the interconnections between various security domains.

The most essential consideration will be the perspective in which security is understood. Given of the numerous paradoxes that a traditional, realist take on national security produces, we will apply the model of integrated security systems (Kitler, 2017) that combines the Copenhagen School paradigm and its varied security sector divisions, with the Welsh school's critical approach, with human security being the basic point of reference (Hama, 2017). Security taxonomies depend on one's understanding of security, which is a subject of endless debate. Current approaches such as environmental security, national security in the political sense, energy, and human security are parallel instead of complimentary (Prizzia and Levy, 2018). Ideally, "national security, human security, environmental security, energy security, and climate security should reinforce each other. A strong state apparatus is needed as well—to address climate mitigation and adaptation; ensure the physical protection of

the citizenry; promote ecological integrity; and provide public services" (Prizzia and Levy, 2018: 52).

3.2 Human Security as an Integral Part of National Security

Human security is an essential component of this system. Despite criticism of its conceptual ambiguity, human security is an important aspect of international security discourse. According to the 2012 United Nations' General Assembly resolution, it is defined as: "the right of people to live in freedom and dignity, free from poverty and despair. All individuals, particularly vulnerable people, are entitled to freedom from fear and freedom from want, with an equal opportunity to enjoy all their rights and fully develop their human potential" (Zeigermann, 2020).

In the article on policy coherence for sustainable development, Zeigermann (2020) traces the relationship between the different types of human security and dimensions of sustainable development. Created in the context of fragile states, they are worth examining—particularly before any attempts to draft a sustainable security system are made. Some of the possible linkages between the above-mentioned dimensions of human security and sustainable development are environmental sustainability, social sustainability, economic sustainability, and sustainable governance. In the realm of food security, social sustainability refers to access to sufficient, safe, and nutritious food and to economic security—ensuring individuals a basic income, productive work, labor rights, and access to knowledge (United Nations, 2012, as cited in Zeiegermann, 2020: 6).

Thus, human security and environmental security, instead of being only partially concurrent, will be an integral part of national security. It is also necessary to view all national security matters from a collective, long-term, systemic perspective, so that the realization of national interests is not at odds with the same category at the global level. The question nowadays is not whether the principles of sustainability can be applied to national security theory and practice—it is imperative to do so. Governments and other power and governance structures do not have much choice but to understand they operate not in a national vacuum, but in a global complex-adaptive reality, in a highly interconnected socio-ecological system of the Anthropocene (SRC, n.d.). The proposed model provides a way to integrate these critical approaches in a workable manner.

3.3 The Essence of Sustainable Security

Since the beginning of the XXI century, the Oxford Research Group's (ORG) investigations have led to major developments in the concept of sustainable security (ORG, 2020a). Their 2006 report, *Global responses to global threats: Sustainable security for the XXI century* indicated major weaknesses and problems with the "control paradigm" of security theory and practice that could prove self-defeating in the long term. The Group proposed a novel approach based on the idea of collective

security—one that addressed the root causes of the five drivers of instability: competition over resources, climate change, marginalization of a large majority of the world, terrorism, and global militarization. It promotes a shared, sustainable means of taking responsibility for threat-management, with respect for international law and fundamental human rights, and does not attempt to unilaterally control threats using force but aims at cooperative solving of the root causes of security issues (Abbot *et al.,* 2006: 6). Their most recent flagship project, the *Sustainable Security Index* (Watson *et al.,* 2020: 3), revisited the drivers of insecurity that can lead to potential conflicts and addressed three that need urgent remedial action. They are:

1. Poor governance and marginalization or prejudice against certain groups that can make conflict more likely.
2. Overreliance on military responses (both internally and externally) can lead to perpetual conflict and instability.
3. Climate change and resource scarcity can exacerbate the causal factors of conflict and violence (Abbot *et al.,* 2006).

The ORG argues that to successfully establish sustainable security, states need to look beyond military solutions instead, they should adopt policies that recognize the importance of sustainable security and address it in an integrated manner (Watson *et al.,* 2020: 3). It is crucial to note that a sustainable security paradigm does not imply a pacifist approach and does not underestimate the defense aspect of security.

Other scholars in the field of sustainable security have sought to develop a broader definition of "security." Prizzia and Levy (2018), for instance, see sustainable security as a product of sustainable development and human security discourse. Its transformative potential in mutually dependent human-environmental conditions lies in integrating national, human, environmental, and energy security concerns, while capitalizing on opportunities provided by human creativity, diplomatic openings, modernization, and environmental change (Prizzia and Levy, 2018: 51). Sewak (2005), in *Multi-Track Diplomacy Between India and Pakistan: A Conceptual Framework for Sustainable Security,* concludes that sustainable security "goes way beyond a ceasefire or settlement as it necessitates conciliation between hostile nations, focusing on 'a plurality of approaches and actors' beyond the clique of diplomats and politicians, based on the assumption that 'there are several unique ways to help conflictants find common ground and citizens can use their own "vocation and location" within a society to promote peace and security' (Sewak, 2005)." The Center for American Progress considers sustainable security as a conglomeration of human security and collective security, balancing defense, diplomacy, and development. In terms of international security, it is based on "smart foreign policy that deals simultaneously with immediate threats and global challenges, prevents crises rather than merely reacting to them, cares about people—as well as states—out of compassion and enlightened self-interest, understands the strategic necessity of strong alliances and cooperation, and restores diplomacy and development as vital tools of foreign policy" (Center for American Progress, 2020). Most importantly, however,

the major strength of the sustainable security concept is (as previously mentioned) in the integration of various domains of security into a systemic, synergistic whole.

This has a practical dimension, since it "helps leaders and policy makers to highlight the complex system dynamics and nonlinear interdependencies of tightly coupled human-environmental systems" (Khagram *et al.,* 2003). Moreover, it directs attention toward matters of social justice, ecological health, and sustainable livelihoods, creating frameworks that link vulnerability or resilience with development; promotes transparent, flexible, and participatory processes for developing integrated education plans, environmental regulations, health priorities, and economic reforms; ensures that institutional reform and the devolution of responsibility for human and environmental security to lower levels of government is accorded the requisite financial and human resources while promoting "contextually disaggregated" place-based goals and indicators (Khagram *et al.,* 2003).

The sustainable security paradigm thus defines national security as a holistic and synergistic complex-adaptive system, one that integrates various domains of international, social, and individual activity in a long-term, sustainable fashion. Moreover:

- Any activities undertaken within this paradigm address the root causes of problems; enhance resilience; and envision second- and third-order effects from a long-term perspective.
- The desired end-state to which those actions lead is a safe environment for just and sustainable development for all.
- The concept must be accompanied by locally emergent practical models and tools that are context-bound but should base on a general, theoretically coherent, empirically verifiable, and practically actionable scheme that will work on both the collective and individual levels.

It is also crucial to acknowledge that sustainable security is much more than governments admitting that security is multidimensional, and that the environment is a fundamental domain of national and international responsibility. It also goes way beyond "greening" defense departments, militaries or reducing their bootprint. The *Sustainable Development Goal 16: Peace, justice, and strong institutions* is only a point of reference, since it lacks the political backing that is needed to implement a sustainable approach towards security (Sustainable Development Goals Platform, 2020). What is needed for the successful transition to a sustainable security culture is a complete paradigm shift, one that is made possible by education and organizational change.

3.4 Case Studies: Security Paradoxes

Having established an integrated theoretical framework, how well does it apply to the challenges of real-world cases? Even countries that score high on the Sustainable

Security Index (SSI), fail to avoid grave paradoxes that can, from a long-term perspective, undermine the entire security system. These paradoxes are, to some extent, a result of the fact that a traditional, fragmented understanding of state security is much too narrow in scope to address contemporary threats in a systemic, integrated manner. Critical security scholars go further, criticizing the concept of security itself. The thrust of their criticism is that as a technology of governance, security is about power—one that has become a dangerous illusion and fetish, a false consciousness that diverts attention away from exploitation and alienation (Crampton, 2013). Security processes treat people and things as objects to be measured against a normative ideal, to improve the capacity for governance. This, however, narrows national security policies down even further, providing only short-term solutions that serve the interests of small power structures, negatively impacting the system.

3.4.1 COVID-19 and sustainable security

The influence of the COVID-19 pandemic on global security mechanisms was the first to prove the utility of the sustainable security concept by addressing the three major drivers of instability (ORG, 2020b). In the "poor governance and inequality" category, it was found that the outbreak could create a "double emergency" in fragile states, having a destructive impact on health systems and exacerbating humanitarian crises. Combined with the lack of proper management of minority interests and inequalities it can mobilize, and expand specific interest groups, and lead to violence. Grievances can be triggered by economic, social, political, and cultural inequalities between groups, and if states respond to the protests and unrest triggered by such grievances in an aggressive or divisive fashion, it can further exacerbate violence and instability (ORG, 2020b: 9). This is exactly what happened in the United States in 2020, with massive civilian unrest stemming from racial discrimination (ORG, 2020b: 10), although the country is relatively high on the SSI, at number 40.

The second driver, "over-reliance on military solutions," is the notion that militaristic solutions to global instability contribute to the problems they are meant to solve, both internally and internationally (ORG, 2020b: 11). It will be elaborated upon in the section below on the military bootprint. The global pandemic has also had a sobering impact on the third driver, "environmental governance." It has become increasingly evident that future pandemics are most likely to emerge from ecosystem degradation, climate change, and the interaction of the two trends. "Biodiversity provides a key service many of us are less familiar with disease regulation. Natural biodiversity limits the exposure and impact of many pathogens through a dilution or buffering effect, thus minimizing opportunities for pathogen spillover to humans (…). Climate change is an additional, known driver of emerging infectious diseases, creating new opportunities for pathogens, accelerating the appearance of invasive species, and displacing the range where natural species occur." (Mira-Salama, 2015). This confirms the argument that an understanding of socio-ecological systems and their mechanisms in the Anthropocene and a move towards the biosphere stewardship approach, becomes imperative for outlining any national security policies.

3.4.2 Polish NSS 2020: Between sustainable theory and unsustainable practice

The above is also true for crafting national security strategies. Each state has a considerably basic set of documents on which all the following normative and executive documents, policies, and actions base. Therefore, they can become root causes of numerous paradoxes that hinder sustainable security in short- and long-term perspectives. The *National Security Strategy of the Republic of Poland* (*NSS*) (Office of National Security, 2020), together with its implemented policies, provide a valuable case study in this respect.

The *Strategy* views the contemporary security environment as increasingly complex and uncertain, with political, military, economic, and social interactions accelerating on a national, regional, and global scale, thus exerting a powerful influence on both the strategy, as well as the orientation of the transformation of the national security system. The most serious threat is claimed the neo-imperial policy of the authorities of the Russian Federation, pursued by means of military force. To counter it, EU and NATO along with bilateral and regional cooperation with key partners serve as the primary guarantors of security (Office of National Security, 2020: 2). In theory, the strategy is based on responsible and sustainable development principles; the values of independence; and the sovereignty of the state, the security of its citizens; human and civil liberties and rights; human dignity, justice, national identity, and heritage; democratic rule of law, solidarity, and an international order based on the principles of international law and environmental protection (Office of National Security, 2020: 11).

These pillars have yielded results that contradict the basic rules of sustainable security and have the potential to destabilize the national security system, which would have a series of adverse regional effects.

- *Guarding the independence, territorial integrity, sovereignty, and security of the state and its citizens* (Office of National Security, 2020: 12). However, resilience is understood only in narrow defense terms, which might cause some problems from a longer-term perspective.
- *Shaping international order, based on solidarity and respect for international law* (Office of National Security, 2020: 22). Controversial policies in the judicial field that are met with a strong response from the EU (European Commission, 2020), as well as nationalist sentiment and rule of law issues, have steered the country a little off the EU course.
- *Strengthening national identity and guarding national heritage, which are rooted in Christian heritage and universal values* (Office of National Security, 2020: 11). In practice, the serious human rights violations in the field of social equality—with the inclusion of sexual minorities for instance—that Poland has witnessed, contradict the fundamental principles that the EU as well as most high-functioning democracies, hold dear (Human Rights Watch, 2020). Plus, effective diversity management is, as previously noted, one of the prerequisites for maintaining a sustainable security system.

- *Ensuring conditions for sustainable and balanced socio-economic development, while safeguarding energy and ecological security*. From an environmental and political perspective these two pillars are, practically speaking, a major source of concern. First, energy security will continue to be based on traditional energy sources (Office of National Security, 2020: 34) such as coal, oil and gas, even as alternative energy sources are being cultivated. A real challenge, according to the *Strategy,* is maintaining the competitiveness of electricity production in Poland in the face of the EU's climate and energy policy, while addressing serious problems with energy infrastructure (Office of National Security, 2020: 9).

The question is, how and why does a country expect to be able to maintain a sustainable economy on non-sustainable energy sources? The viability of coal as an energy source—recommended for developing countries if no other alternatives are possible—is debatable (Climate Action Network: Europe, 2017).

Second, traditional sources of energy have become politically problematic. As mentioned previously, the Russian Federation is considered a major threat to Polish security. However, the structure of gas and coal imports to Poland rely heavily on that country; Russian coal comprises 10,80 million tons of the 16,69 million tons of total imports (with around 60 million tons of coal processed on a yearly basis) (Ministry of National Assets, 2020a). Despite the Ministry of Energy's February 2020 claims that coal imports from Russia will be halted and that a plan for fixing national mining capacities will be implemented, no noticeable change has been observed—in part because of the COVID epidemic outbreak in Polish coal mines (Ministry of National Assets, 2020b). The official claim that coal-based energy production, in contrast to energy extracted from alternative sources, guarantees stability of delivery and is not dependent on import sources, as with gas (Ministry of National Actives, 2020a), does not really hold true in the above context. One simply cannot power a sustainable system with non-sustainable energy, the improper management of social diversity, or resilience understood purely in terms of defense (Ruiz, 2018).

3.4.3 Military impact on environment
When sustainable security is perceived as an integrated, systemic whole, the central concern is not about how climate change and environmental issues impact national security, but how national security and defense policies will affect the environment. In the defense realm, "security becomes dangerous," and geopolitical ecology is placed on the backburner.

First, environmental security is understood as one of the primary domains of military responsibility and influence—one in which human capital and natural resources need to be prudently managed (Hartman, 2012: 3). For instance, the American Army has implemented certain sustainable practices to enhance its capabilities, it has done so in a purely instrumental fashion. Sustainability is viewed as a "mission enabler" that allows the military to enhance readiness, maximize operational capability, and reduce

total life cycle costs of military systems, materials, facilities, and operations; enhance the quality of life of soldiers and their families; and promote model citizenship (Hartman, 2012: 6). Moreover, the US military claims to invest in resilient and sustainable energy practices, as directed by *Executive Order 13514*, "Federal Leadership in Environmental, Energy, and Economic Performance" (October 5, 2009) by producing cleaner power, reducing energy consumption, managing water use and minimizing waste. Their efforts encompass a vast amount of land and many vehicles, ships, planes, buildings, and other facilities (Energy Central, 2012).

However, the "investment" is rather long-term. Given its extensive institutional infrastructure and the reach of its operations, both domestically and overseas, the US military consumes more liquid fuels and emits more carbon-dioxide equivalents than many medium-sized countries (Belcher *et al.,* 2019). The US military remains the 47th largest emitter of greenhouse gases in the world, if only considering emissions from fuel usage. This calculation excludes emissions from food and electricity consumed by the military; changes in land use due military operations; or any other source of emissions (Belcher *et al.,* 2019).

Considering the environmental impact of overseas deployments, for instance, in Afghanistan alone—and despite years of mine action programs—it was estimated that 3,321 minefields, 296 battlefields, and 37 contaminated firing ranges remained as of 2017, their presence affecting 1,446 communities (Conflict and Environment Observatory, 2018). Moreover, the use of depleted uranium munitions in Afghanistan and Iraq since the First Gulf War of 1991, have had hazardous implications for local socio-ecological systems in domains such as public health (Elsayed *et al.,* 2019) and water pollution (Kadhim *et al.,* 2020). This is evident in countries that have an extremely low SSI and are still enmeshed in deep conflict, Iraq (SSI: 152) and Libya (SSI: 154), have been facing a dramatic deterioration in environmental health. Due to two Gulf Wars and prolonged conflict, Iraqis have been exposed to heightened levels of uranium from various weapon systems.

According to Fathi *et al.* (2013), Iraq's citizens: "…are facing about 140,000 cases of cancer, with 7000 to 8000 new ones registered each year. In Baghdad, the incidence of cancer per 100,000 people has increased, just as they have also increased in Basra. The overall incidence of breast and lung cancer, leukemia, and lymphoma has doubled, even tripled" (Kadhim *et al.,* 2020: 30). As for Syria (which is last on the Index), the global pandemic has worsened the consequences of armed conflict by deepening the humanitarian crisis, hitting the 5,5 million Syrians in refugee camps in Egypt, Jordan, Lebanon, and Turkey particularly hard (The United Nations High Commissioner for Refugees, 2020). The number of vulnerable refugees who lack the basic resources to survive in exile has risen even further because of the COVID pandemic.

The military's negative impact on the environment is hugely significant because it is a major contributor to climate change. This increases the chances of natural disasters, which, as a recent study by SRC scholars argues, raises the risk of social unrest and outbreaks of violence (Schleussner *et al.,* 2016). Globally, an incidence rate of 9% regarding outbreaks of armed-conflict and disaster occurrence has been indicated, with 23% of social unrest with armed consequences coinciding with climatic calamities in ethnically fractionized societies (Schleussner *et al.,* 2016). Because armed conflict also increases vulnerability to natural and man-made disasters, a vicious circle could emerge, where natural disasters fuel violence and violence increases the risk of further disasters. The *Global Peace Index* of 2020 enumerates further correlations between environmental change, also inflicted by the military, and security. It has been estimated that:

- The number of natural disasters has tripled in the last four decades.
- By 2050, climate change is expected to create up to 86 million additional migrants in sub-Saharan Africa, 40 million in South Asia, and 17 million in Latin America.
- Climate change induced ecological threats are strongly correlated with positive peace, suggesting that high peace countries have a greater capacity to adapt to climate change and deal with its adverse impacts.
- Eight-hundred and seventy-three million people experienced severe food insecurity and hunger in 2017. As a result of the COVID-19 pandemic the risk of food insecurity could increase fourfold in the world's most food insecure nations compared to those that are low-risk.
- More than two billion people live in countries experiencing high water stress, and about four billion people experience severe water scarcity for at least one month of the year. Water use has increased by one percent per year over the last four decades (Global Peace Index, 2020).

Many of the effects of foreign deployments on local sustainability and environmental balance have been noted by the United Nations. In some places like Darfur, for instance, and northern Mali where water is a scarce resource, communities may see UN missions as resource competitors. The UN is working to contain any potential damage that foreign deployments could cause to the environment. They are therefore developing an overarching policy framework that will allow communities to better manage environmental crises, with UN field support (United Nations Peacekeeping, 2020).

NATO's official sustainability policy focuses on two broad domains, environmental security (climate-related threats) (Sodr, 2020) and environmental protection. The purpose of 'greening the alliance'—by introducing standardized training and executing the requisite planning, research and development—is to: a) protect the environment from the damaging effects of military operations; b) promote environmentally friendly management practices in training areas and during

operations; c) adapt military assets to a hostile physical environment; d) prepare for and respond to natural and man-made disasters; e) address the impact of climate change; f) educate NATO officers in all aspects of various environmental challenges and their management; g) support partner countries in building local capabilities; h) enhance energy efficiency and fossil fuel independence; building environmentally friendly infrastructure (NATO, 2020) in the domains of standardization, planning, training, and research and development.

At the same time however, the dominant ideological charter for interventionism encourages increased militarization to be perpetually prepared to intervene (Forte, 2014), which is inimical to sustainable security. This ideological justification is based on the following premises:

- that these efforts are not motivated by a desire to protect or further entrench corporate power and neoliberal socioeconomic restructuring;
- that "our" violence is civilized, while the violence of others is barbaric;
- that our political systems are democracies, whereas others are brutal regimes;
- that there really is no imperialism, and if there is then it is both eternal and a fundamental, intrinsic part of human nature;
- that we must never stand idly by while others suffer, except for when it is suitable to our leaders, especially when it us committing the atrocities;
- that there is no political bias within our dominant political and media institutions;
- that we practice good governance, both transparent and accountable, without pandering to private interests; and,
- that we encourage and tolerate a broad range of views and do not limit discourse to a few select, permissible perspectives (Forte, 2014; ix).

This worldview contributes to an unjust global security paradigm, which is contradictory to attempts to create sustainable systems of national and international security.

3.5 The Sustainable Security Culture Development Cycle

The sustainable security paradigm that has been outlined is a holistic and synergistic, complex-adaptive system that can integrate various domains of international, social, and individual activity in a long-term, sustainable fashion. To operationalize those principles, I propose the Sustainable Security Culture Development Cycle or SSCDC. Its purpose is to give security and defense institutions the opportunity to apply an alternative security paradigm to attain the desired sustainable security development conditions, by setting the tone and preparing the ground for policies, practices, decisions, and actions that will contribute to maintaining and promoting sustainable security at the institutional, national, regional, and international level, within an institution's scope of functioning. The cycle applies the relations between the major

components of a sustainable security culture (these are, as aforementioned, sustainable development, human security, culture and values, national security, environmental security, systemic approach, management, regional and global approaches, resilience and transformation) in the following manner (Figure 1):

Figure 1. *The Sustainable Security Culture Development Cycle.*

Source: *Own elaboration.*

1. DESIRED END STATE: The departure component of the cycle is the desired end state. Since we are taking the process-relational perspective, it is not a fixed point or destination, but rather a set of conditions that enable the development of normative, ethical, operational, and evaluative principles and tools. Those will be context-bound, culturally adjusted, and locally specific. This final stage will also have a subjective, perceptual dimension—what perception and opinion of the status quo should the individuals and groups within an institution have on its functioning? How does the institution wished to be seen by external agents?

2. PARADIGMS: The next step in the cycle is to articulate the paradigms—or ideas about the world—that govern an institution and are shared by its constituents. These paradigms will be based on local or indigenous knowledge systems. However, variations on common themes such as systems thinking; embracing the holistic nature of security and the necessity for a synergy between social and ecological systems; as well as a focus on emergent structures, must also be factored in.

3. VALUES AND PRINCIPLES: From the paradigms, a set of values and principles that will guide the organizational culture of a given entity will emerge. Resilience, diversity and its proper management, stewardship, shared responsibility, and focus on not only directed but also emergent structures shall be the points of reference. In addition, the mindset of connectedness,

responsibility, alertness, and openness to change must be promoted in all individuals that create the organization, from bottom to top.

4. INSTITUTIONS AND STRUCTURES: In this phase, the goal is to shape structures, and establish concrete methods and tools within organizations that will promote sustainable institutional growth. The coherence of internal and external activities is enormously important at this stage. So is the focus on personal character traits, skills, and behaviors of the individuals that will be creating the culture.

5. PRACTICES AND ACTIVITIES: The final stage of the SSCDC is to establish a range of practices and activities that will ensure the maintenance of the desired values, paradigms, and structures. They will be of an evolutionary nature—not only will the desired practices be developed, so will the requisite evaluative and corrective mechanisms—which, in turn, will be based on the complex-adaptive character of such an approach, and are imperative. The cycle is an iterative process that must constantly monitor and respond to the second- and third-order effects of its implementation and application to an institution's organizational culture, which will result in a specific set of policies and activities in the security realm. Whether it is internal, local, national, regional, or global security, all must be considered.

It is crucial to stress once again that the purpose of this model is not to improve safety or security procedures within an organization (its security culture), but to transform the organization into an entity that acts sustainably in the security realm. Details of how the cycle is organized and managed will be covered in the next article in the author's planned series on sustainable security. The final version of the cycle will have practical value as well as transformational potential, for both regional and global security environments, in the pursuit of a just and sustainable future.

3.6 Revolutionary Future or Utopia?

Whether it is political science, the management sciences, or security studies, each discipline follows a utopian line of thinking, while offering an explicit or implicit vision of a better world. Problems and challenges often lead to hopes of para-scientific, scientific, universal, or popular utopias. They are specific collections of noble intentions that present themselves as catalogs of what is universally understood as "the common good," or as the quintessence of collective hopes as articulated by individuals and small communities (Przegalińska, 2016; 54). Utopian thinking can lead to violent revolutions, it can encourage gradual, evolutionary action aimed at changing the existing order, and serve as a useful tool for fulfilling the mission of the social sciences.

After all, if the existing principles of human rationality have thus far been unable to create a safe, globally acceptable civilization, do we not need new utopias? It seems

that the idea of sustainable development creates such opportunities, because it has a more extensive understanding of global problems and any resulting threats to human existence than ever before. It is also equipped with a more improved means of cognition, that is, it has a better grasp of the dangers—potential as well as real—facing the modern world (Przegalińska, 2016: 92). The idea of sustainable development as a utopian notion is undoubtedly double-edged. It is not only a model of a desired future, but a declaration of its realization, or at least of actions aimed at achieving such a future. Therefore, it is also a statement of potential: that a viable future awaits contemporary society due to the inherent mechanisms of its evolution and dynamics. (Przegalińska, 2016: 98).

Official integration of sustainability into government policy and the daily workings of international organizations is being implemented widely. Almost all contemporary world governments mention sustainability in their key documents, and as of 2020, 193 countries claimed to have integrated SDGs into strategic agendas across multiple sectors (United Nations, 2020b). However, smaller-scale, radical application of sustainability to communities has a much older history, thanks to the development of intentional communities. One could argue that early native tribes were so by their very nature, and, in general, indigenous peoples' social organization was sustainable at its very core (UNESCO, 2020).

However, our focus is on deliberate efforts and emergent structures that offer an alternative to mainstream social organizations. Intentional communities are defined as close-knit, small-scale communities formed around secular or religious ideas about how one ought to live. They typically have a shared lifestyle, cultural orientation, and common purpose (e.g., ecofriendly life or worshiping a god) (Grinde *et al.,* 2018). Research on the quality of life in 174 intentional communities shows that a sustainable way of life is not at odds with high levels of life satisfaction, and that "sustainability, in the form of a communal lifestyle with a low ecological footprint, may be promoted without forfeiting wellbeing" (Grinde *et al.,* 2018). As the authors argue, even from an evolutionary point of view, this is a more favorable form of social organization.

However, the principles of social connectedness and proximity to nature, which can lead to genuine sustainability, have failed to enter the mainstream from the bottom-up, requiring a "new generation of self-created utopias" (Mariani, 2020). The utopia of sustainable development can follow the same path as the utopia of human rights. As Jose Da Vega argues, there is no guarantee that sustainable development is achievable or even possible, which is also the case with ideals such as freedom, social justice, or human rights. They are said to be the foundations of the future that human civilization aspires and are inseparable components of sustainable development. This is precisely what makes them utopian.

However, cognitive inertia in terms of the adaptation of human evolution throughout the last twelve millennia will certainly delay the emergence of a more adequate consciousness—one that is better equipped to face extremely serious contemporary

threats such as global warming, the acidification of the oceans, and the erosion of planetary biodiversity. An optimistic outlook in this case, is the expectation that future generations will be more predisposed to altruism than current generations, as a result of better scientific insight into the worsening crisis. This could certainly make it possible to apply the so-called Principle of Precaution (Da Veiga, 2017).

There are also reservations about the SDGs themselves. A group of Yale scholars has outlined some of the weaknesses of this approach, particularly with respect to human rights:
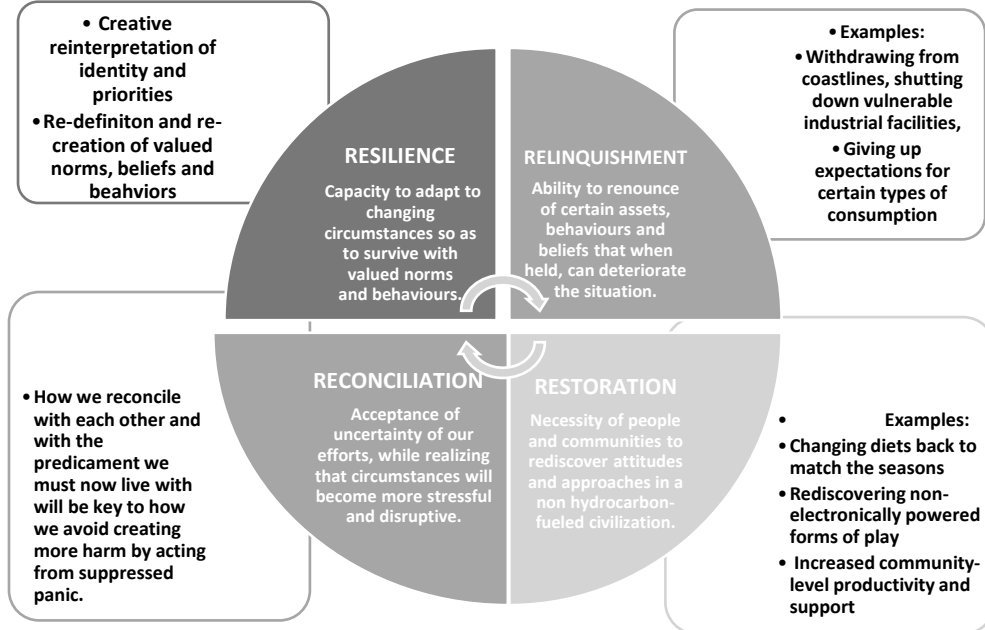
1. They promote a false sense of success and make it easy for governments to delay the pursuit of human rights.
2. They fail to specify that a human-rights-based duty or any genuine goal to eradicate severe poverty, requires a clear division of labor.
3. The full realization of human rights requires a massive roll-back of international and intra-national inequalities, which SDGs fail to demand.
4. Despite official protestations to the effect that human rights are indivisible, interdependent, and interrelated, the SDGs cover only a subset of internationally recognized human rights goals that continue to remain widely unrealized among the poor.
5. They fail to reflect on the root causes of the huge and persistent poverty-related human rights deficit; consequently, they ignore the structural reforms that we urgently need to make national and supranational institutional arrangements less skewed toward the interests of a tiny global power elite.
6. They fail to envision the kind of independent monitoring without which we cannot reliably assess the magnitude of the geographical and demographic distribution of human-rights-related deprivation (Pogge and Sengupta, 2015).

The SDGs have also been criticized for being universalist, unfocused, inconsistent, and difficult to quantify, implement, or monitor. A potential conflict between socio-economic and sustainable development has also been noted (Bendell, 2018). When it comes to the global entities such as the World Bank, FAO, or the WHO, these doubts and criticisms must be addressed by governments, NGOs, and regional and transnational entities.

Some critics of sustainability also claim that we have already crossed the concept's feasibility threshold and now find ourselves in a post-sustainable reality. Bendell, for instance, argues that it is necessary for us to reassess our work and life in the face of likely, inevitable, or already unfolding societal collapse due to climate change (Bendell, 2020). He proposes a move towards deep adaptation in social, economic, cultural, and psychological domains, one that is necessary if humankind wishes to confront looming threats. The Deep Adaptation Agenda featured in the occasional paper, provides a novel meta-framework with implications for research,

organizational practice, personal development, and public policy (Bendell, 2020: 3). Its key aspects are resilience, relinquishment, restoration, and reconciliation (Figure 2):

Figure 2. *Components of the "Deep Adaptation Agenda."*

- • Creative reinterpretation of identity and priorities
- • Re-definiton and re-creation of valued norms, beliefs and beahviors

RESILIENCE
Capacity to adapt to changing circumstances so as to survive with valued norms and behaviours.

RELINQUISHMENT
Ability to renounce of certain assets, behaviours and beliefs that when held, can deteriorate the situation.

- • Examples:
- • Withdrawing from coastlines, shutting down vulnerable industrial facilities,
- • Giving up expectations for certain types of consumption

- • How we reconcile with each other and with the predicament we must now live with will be key to how we avoid creating more harm by acting from suppressed panic.

RECONCILIATION
Acceptance of uncertainty of our efforts, while realizing that circumstances will become more stressful and disruptive.

RESTORATION
Necessity of people and communities to rediscover attitudes and approaches in a non hydrocarbon-fueled civilization.

- • Examples:
- • Changing diets back to match the seasons
- • Rediscovering non-electronically powered forms of play
- • Increased community-level productivity and support

Source: *Own elaboration of Jim Bendell's work (2018). "Deep adaptation…." Op. cit.*

Regardless of whether one agrees with Bendell's line of reasoning, the emphasis on the role of human psychology, personal character, and individual responsibility in the face of climate change, is a major strength of his conceptual work. The fact that this is a mindset based on the individual and collective framing of the principles mentioned above, is either absent from or inadequately addressed in various governmental documents, international agreements, executive documents, advisory literature, and various media. Building the appropriate narratives and transformative psychological tools is the modus operandi we should adopt, in both deep and regular adaptation alike. If not, this is just yet another utopia, a vision of the perfect community, region, or state that merely claims to follow the principles of sensitive and responsible development—as useful as a motorcycle without the rider. "Beautiful. Going nowhere" (Strayed, 2011).

4. Conclusions

This article assessed the existing security paradigm through the lens of critical theory, and established a basis for a novel SSP. It also incorporated the results of the research that led to the creation of the SSCDC, whose primary purpose is to enable national,

regional, and transnational security and defense institutions to operationalize a holistic and synergistic security paradigm. In this way, the plans, policies, practices, decisions, and actions undertaken by transformed entities will facilitate our efforts, on a global scale, to achieve a sustainable world in the realms of national and international security. We are now left with the title question – is sustainable security yet another promise of utopia'? The extensive work done by organizations such as the UN, the EU, the SRC, the ORG, as well as a range of smaller entities and individuals, proves that it does not have to be. Concepts like biosphere stewardship, resilience, and holistic approaches to security and sustainability reverberate across policy and executive spheres. The scale of national and transnational efforts should be grander, clashes between individuals and collective interest, and environmental or societal security should be bridged; paradoxes should be reconsidered. However, the research insights presented in this article prove that sustainable security has significant potential for the realization and transformation of a sustainable future.

A couple of further research streams have emerged during the investigations conducted in this article. First, it is necessary to elaborate on and empirically verify the applicability of the sustainable security culture development cycle in various settings. The second is the influence of cultural factors on defining and operationalizing the concept of sustainable security. Third, the legislative and policy considerations will be to address the deep leverage points in national security systems towards the full and permanent realization of the sustainable security potential. Fourth, we will develop a wider array of methods and tools for the development of skills and mindsets of individuals that are to actively contribute to creating a sustainable security culture from bottom-up.

The latter is of great importance. The recent COVID-19 pandemic made us brutally realize that it is impossible to make decisions on the national security level that will not affect the whole global system. We are a global tribe, mutually responsible for each other – this is the reality, as palpable as gravity. It will work accordingly, regardless of whether we try to understand its complex and interwoven nature. Thus, better for us if we do try to do it and see the world for what it really is – a synergistic, interconnected whole in which our individual role and responsibility is greater than we think.

References:

Abbot, C., Rogers, P., Sloboda, J. 2006.Global Responses to Global Threats. Sustainable
 Security for the XXI Century. London: Oxford Research Group.
Belcher, O., Bigger, P., Neimark, B. 2019. Hidden carbon costs of the 'everywhere war':
 Logistics, geopolitical ecology, and the carbon boot-print of the US military.
 Transactions of the Institute of British Geographers, 44(1), 65-80. DOI:
 10.1111/tran.12319.
Bendell, J. 2018. Deep adaptation: A map for navigating climate tragedy. In: IFLAS
 occasional paper 2, Cambria, UK. Available at:
 http://lifeworth.com/deepadaptation.pdf.

Biggs, R., Schulter, M., Schoon, M. 2015. Principles for Building Resilience: Sustaining Ecosystem Services in Social-Ecological Systems. Cambridge: Cambridge University Press.

Borgona, I. 2018. Cosmetics industry and megatrends. In: Kosmetica World. Available at: https://www.kosmeticaworld.com/2018/04/02/cosmetics-industry-and-megatrends/.

Browning, C., McDonald, M. 2011. The future of critical security studies: Ethics and the politics of security. European Journal of International Relations, (19)2, 235-255. DOI: doi.org/10.1177/1354066111419538.

Capra, F., Fonzi, L. 2014. The Systems View of Life: A Unifying Vision. Cambridge: Cambridge University Press.

Center for American Progress (n.d.). Available at: https://www.americanprogress.org/ss-about/.

Climate Action Network: Europe. 2017. Coal phase out: Inter-ministerial climate action group. Available at: http://www.caneurope.org/energy/coal-phase-out.
Conflict and Environment Observatory. 2018. Country brief: Afghanistan. Available at: https://ceobs.org/country-brief-afghanistan/.

Crampton, J. 2013. Is security sustainable? Environment and Planning D: Society and Space 31, 571-577. DOI: 10.1068/d3104com.

Creswell, J., Creswell, J.D. 2018. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. Los Angeles: Sage Publications.

Da Veiga, J.E. 2017. The first Anthropocene utopia. Ambiente e Sociedade, 20(2), 227-246. DOI: doi.org/10.1590/1809-4422asocex002v2022017.

Derrickson, S. 2013. Sustainability essential for national security and world peace. In: Obama White House Archives. Available at: https://obamawhitehouse.archives.gov/blog/2013/03/21/sustainability-essential-national-security-and-world-peace.

Dolan, P. 2002. The sustainability of sustainable consumption. Journal of Macromarketing, (22)2, 170-181. DOI: 10.1177/0276146702238220.

Elsayed, S., El-Kameesy, S., Elrawi, R. 2019. Depleted uranium assessment and natural radioactivity monitoring in North West of Iraq over a decade since the last Gulf War. Journal of Environmental Radioactivity, 201, 25-31. DOI: 10.1016/j.jenvrad.2019.01.017.

Energy Central. 2012. US military invests in sustainability. Available at: https://energycentral.com/c/ec/us-military-invests-sustainability.

European Commission. 2019. Eurobarometer on Discrimination 2019: The social acceptance of LGBTI people in the EU. Available at: https://ec.europa.eu/info/sites/info/files/ebs_493_data_fact_lgbti_eu_en-1.pdf.

European Commission. 2020. Rule of Law: European Commission launches infringement procedure to safeguard the independence of judges in Poland. Available at: https://ec.europa.eu/commission/presscorner/detail/en/ip_20_772.

Fagan, M. 2016. Security in the Anthropocene: Environment, ecology, escape. European Journal of International Relations, (23)2, 292-314. DOI: https://doi.org/10.1177/1354066116639738.

Forte, M. 2014. Preface. In: Good Intentions: Norms and Practices of Imperial Humanitarianism. Montreal: Alert Press.
Global Peace Index 2020. 2020. At: https://www.visionofhumanity.org/wp-content/uploads/2020/10/GPI_2020_web.pdf.

Goldsmith, E., Allen, R. 1972. A blueprint for survival. The Ecologist 2(1).

Grinde, B., Nes, R.B., MacDonald, I. 2018. Quality of life in intentional communities. Social

Indicators Research, 137, 625-640. DOI: https://doi.org/10.1007/s11205-017-1615-3.

Hama, H.H. 2017. State security, societal security, and human security. Jadavpur Journal of International Relations, 21(1), 1-19. DOI: 10.1177/0973598417706591.

Hartman, J. 2012. Sustainability and national security. In: Hartmann, Betts *et al.* (eds) Sustainability and National Security. Carlisle: US Army War College, 3-27. Available at: https://csl.armywarcollege.edu/usacsl/publications/SustainabilityNationalSecurityByJimHartman.pdf.

Human Rights Watch. 2020. Poland: Events of 2019 – Part of the EU Chapter. Available at: https://www.hrw.org/world-report/2020/country-chapters/poland.

Kadhim, A., Shortridge, A., Al-Nasrawi, A.K.M. 2020. Causes and consequences of environmental degradation along the Shatt Al–Arab River: A coupled human and natural systems (CHANS) perspective. GeoJournal. DOI: 10.1007/s10708-020-10225-0.

Khagram, S., Clark, W.C., Raad, D.F. 2003. From the environment and human security to sustainable security and development. Journal of Human Development, 4(2), 289.

Kitler, W. 2014. Identyfikacja, Klasyfikacja, podział i uzasadnienie pojęcia, istoty, składników i zakresu bezpieczeństwa państwa (narodowego). Warsaw: National Defense University.

Laurance, W. 2017. The dark legacy of China's drive for global resources. In: Yale Environment 360 Blog. Available at: https://e360.yale.edu/features/the-dark-legacy-of-chinas-drive-for-global-resources.

Lee, T. 2019. Financial investment for the development of renewable energy capacity. Energy and Environment. DOI: https://doi.org/10.1177/0958305X19882403.

Mariani, M. 2020. The new generation of self-created utopias. The New York Times Magazine, 16 January. Available at: https://www.nytimes.com/2020/01/16/t-magazine/intentional-communities.html.

Maxmen, A. 2020. What a U.S. exit from the WHO means for COVID-19 and global health. Nature Magazine, 29 May. Available at: https://www.scientificamerican.com/article/what-a-us-exit-from-the-who-means-for-covid-19-and-global-health/.

Merriam-Webster Online Dictionary. 2021a. Anthropocene. Available at: https://www.merriam-webster.com/dictionary/Anthropocene.

Merriam-Webster Online Dictionary. 2021b. Sustainable. Available at: https://www.merriam-webster.com/dictionary/sustainable.

Ministry of National Assets. 2020a. Letter to the Marshal of the Sejm on coal policy. Available at: http://orka2.sejm.gov.pl/INT9.nsf/klucz/ATTBMFJX6/%24FILE/i01571-o1.pdf.

Ministry of National Assets. 2020b. Information on the activities in the sector of energy and coal mining. Available at: https://www.gov.pl/web/aktywa-panstwowe/informacja-dotyczaca-dzialan-podjetych-w-sektorze-energetyki-i-gornictwa-wegla-kamiennego.

Mira-Salama, D. 2020. Coronavirus and the 'Pangolin Effect': Increased exposure to wildlife poses health, biosafety, and global security risks. In: World Bank Blog. Available at: https://blogs.worldbank.org/voices/coronavirus-and-pangolin-effect-increased-exposure-wildlife-poses-health-biosafety-and.

Montiel, I., Delgado-Ceballos, D. 2014 Defining and measuring corporate sustainability: Are we there yet? Organization & Environment, 27(2), 113-139.

North Atlantic Treaty Organization (NATO). 2020. Environment – NATO's stake. https://www.nato.int/cps/en/natohq/topics_91048.htm#:~:text=NATO's%20current%20activities%20related%20to,training%20areas%20and%20during%20operations%3B&text=building%20environmentally%20friendly%20infrastructures.

NATO's Allied Command Transformation. 2017. Strategic foresight analysis: 2017 report. Report for the Allied Command Transformation. Norfolk, VA: Strategic Analysis Branch. Available at: https://www.act.nato.int/images/stories/media/doclibrary/171004_sfa_2017_report_hr.pdf.

OCHA. 2020. Global humanitarian assistance report 2020. Report for Development Initiatives. 22 July. Bristol. Available at: https://reliefweb.int/report/world/global-humanitarian-assistance-report-2020.

Office of National Security. 2020. The National Security Strategy of the Republic of Poland. Warsaw.

Oxford Research Group (ORG). 2020a. ORG's vision. Available at: https://www.oxfordresearchgroup.org.uk/orgs-vision.

ORG. 2020b. The Sustainable Security Index. Available at: https://www.oxfordresearchgroup.org.uk/Pages/Category/sustainable-security-index.

Pogge, T., and Sengupta, M. 2016. A critique of the Sustainable Development Goals' potential to realize the human rights of all: Why being better than the MDGs is not good enough. In: Deacon B (ed) Journal of International and Comparative Social Policy, (32)2, 79-82. Available at: https://cpb-us-w2.wpmucdn.com/campuspress.yale.edu/dist/6/1129/files/2015/10/SDG-HR_Rev-Jan-25-uugh97.pdf.

Prizzia, R., Levy, J. 2018. Towards climate security and sustainable security in the Asia-Pacific region. In: Masys, A.J. and Lin, L.S.F. (eds) Asia-Pacific Security Challenges, Advanced Sciences and Technologies for Security Applications. Springer International Publishing. DOI: 10.1007/978-3-319-61729-9_3.

Przegalińska, A. 2016. Alternative to Barbie. Magia Utopii. W poszukiwaniu utraconej przyszłości, (2), 54.

Ruiz, I.B. 2018. Can Poland end its toxic relationship with coal? Deutsche Welle, 23 November. Available at: https://www.dw.com/en/can-poland-end-its-toxic-relationship-with-coal/a-46356824.

Russian Federation. 1996. The decree of the President of the Russian Federation of 1 April 1996. Available at: https://www.un.org/esa/earthsummit/rusia-cp.htm.

Schleussner, C.F., Donges, J., Donner, R. 2016. Armed-conflict risks enhanced by climate-related disasters in ethnically fractionalized countries. Proceedings of the National Academy of Sciences, 113(33), 9216-9221. Available at: https://www.stockholmresilience.org/research/research-news/2016-09-30-cooling-conflict-in-climate-disasters.html.

Sewak, M. 2005. Multi-track Diplomacy between India and Pakistan: A Conceptual Framework for Sustainable Security. New Delhi, Manohar, and Colombo: Regional Centre for Strategic Studies.

Shepherd, L. 2013. Critical Approaches to Security: An Introduction to Theories and Methods. London and New York: Routledge.

SIPRI. 2019. Global military expenditure sees largest annual increase in a decade – says SIPRI – reaching $1917 billion in 2019. Available at: https://www.sipri.org/media/press-release/2020/global-military-expenditure-sees-largest-annual-increase-decade-says-sipri-reaching-1917-billion.

Sodr, R. 2020. NATO in a climate of change. In: SIPRI Write Peace Blog. Available at: https://www.sipri.org/commentary/blog/2020/nato-climate-change.

Spratt, D., Dunlop, I. 2019. Existential Climate-Related Security Risk: A Scenario Approach. Melbourne: National Center for Climate Restoration. Available at: https://docs.wixstatic.com/ugd/148cb0a1406e0143ac4c469196d3003bc1e687.pdf.

Stockholm Resilience Center. (SRC). (n.d.). Available at: https://www.stockholmresilience.org/about-us.html.

Strayed, C. 2011. Dear Sugar, the Rumpus advice column # 70: A motorcycle with no one on it. Rumpus, 14 April. Available at: https://therumpus.net/2011/04/dear-sugar-the-rumpus-advice-column-70-a-motorcycle-with-no-one-on-it/.

Sustainable Development Goals Platform. 2020. Goal 16: Promote just, peaceful, and inclusive societies. Available at: https://www.un.org/sustainabledevelopment/peace-justice/.

The Sustainable Mama Blog. Available at: https://thesustainablemama.blogspot.com/.

Targanski, T. 2016. Bunt Południa. Magia Utopii. W poszukiwaniu utraconej przyszłości, (2), 86.

UN World Commission on Environment and Development. 1987. Report of the World Commission on Environment and Development: Our common future. Available at: https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf.

UNESCO. 2020. Indigenous peoples. Sustainable development and environmental change. Available at: https://en.unesco.org/indigenous-peoples/sustainable-development.

United Nations. 2020a. Transforming our world: The 2030 agenda for sustainable development. Available at: https://sustainabledevelopment.un.org/post2015/transformingourworld/publication.

United Nations. 2020b. Sustainable development goals officially adopted by 193 countries. Available at: http://www.un.org.cn/info/6/620.html.

United Nations. 2020. The sustainable development agenda. Available at: https://www.un.org/sustainabledevelopment/development-agenda/#:~:text=17%20Goals%20for%20People%2C%20for,and%20prospects%20of%20everyone%2C%20everywhere.&text=2020%20needs%20to%20usher%20in,deliver%20the%20Goals%20by%202030.

The United Nations High Commissioner for Refugees. 2020 Syrian refugees profoundly hit by COVID-19 economic downturn. Available at: https://www.unhcr.org/news/briefing/2020/6/5ee884fb4/syrian-refugees-profoundly-hit-covid-19-economic-downturn.html.

United Nations Peacekeeping. 2020. Environmental impact and sustainability. Available at: https://peacekeeping.un.org/en/environmental-impact-and-sustainability.

Utopia and Dystopia. 2020. List of famous utopian movies. Available at: http://www.utopiaanddystopia.com/utopian-fiction/utopian-movies-list/.

Watson, A., McKay, A., Scanlan, O. 2020. Sustainable Security Index 2020. London: Oxford Research Group.

WWF. 2020. Deforestation and forest degradation. Available at: https://www.worldwildlife.org/threats/deforestation-and-forest-degradation.

Zeigermann, U. 2020. Policy coherence for sustainable development-A promising approach for human security in fragile states? Journal of Peacebuilding & Development, 15(3), 282-297. DOI: 10.1177/1542316620909077.