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Wave of Change in the Baltic Sea:

The Human Security Agenda for EU Nations in the Region

Abstract

Over 85 million Europeans live around the Baltic Sea in eight EU countries and Russia. Due to a shift in geopolitical realities, it is now prudent to re-evaluate the importance of the Baltic Sea. First, a broad structural context is established to assure shared understanding of global challenges faced by EU nations in the region. Second, the concept of human security is outlined and explained in relation to liberal values. Third, this concept is applied and a fundamental analysis of the Baltic Sea is carried out with three leading considerations: 1) (geo)political security; 2) economic security; and 3) environmental security. Given the violations of rule of law by the Polish government in recent years, an overview of the latest events in this country is included , as they launch a meaningful turn in politics and public policy which will improve the cooperation within the Baltic Sea region. The paper ends with recommendations for the region with focus on governance and support for research and innovation, including more advanced use of financial and non-financial data.

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The human security concept aims to engage closely with people to uncover specific vulnerabilities and advance policies based on their priorities. It seeks to establish participatory solutions, breaking traditional delimitations of public, private, and civic sectors by drawing all necessary actors to respond to a challenge (United Nations, 2021). In that spirit a focus group workshop of ELF members living in the Baltic Sea region was carried out in October 2023 in Gdańsk. The two roundtable discussions gathered 15 representatives, aged 18 to 65, from seven countries: Denmark, Finland, Germany, Lithuania, Norway, Poland, and Sweden. Participants argued that security should be understood in a comprehensive, integrated way, and therefore also include the protection of values such as democracy, human rights, and community resilience. Three leading aspects of security have emerged from stakeholders' discussions and came to the forefront of further deepened analysis:

- 1) (geo)political security;
- 2) economic security; and
- 3) environmental security.

This policy paper represents the summary of most important topics discussed by stakeholders.

Volatility or just (a) transition?

The situation of countries in the European Union and around the world is currently described as a polycrisis or permacrisis (WHO, 2022). Polycrisis means that we are dealing with many different crises occurring in one place and time. Recent tragic, military conflicts (i.e. Russian aggression against Ukraine and reignited Israeli-Palestinian conflict) have roiled Europe. Mounting societal and environmental volatilities also include growing income and capital inequalities (World Inequality Lab, 2022), the climate and biodiversity crisis (World Economic Forum, 2020), the energy and raw materials crisis (OECD, 2022), the sharp increase in the cost of living (IMF, 2023), and obviously recent Covid-19 pandemic. The challenges concern various themes, which become interconnected, crises influence each other – creating a dynamic, morphing system of dependencies and impacts. Permacrisis, means that the crisis consistently worsens over time. The period of instability and uncertainty is becoming longer, more intense, and complicated.

A difficult situation, however, does not mean that there are no solutions. Since 2000, a complex, global public policy has been enacted – first in the form of the Millennium Development Goals, currently known as the Sustainable Development Goals (SDGs) adopted by the 193 countries of the UN General Assembly in 2015. This legal obligation caused the beginning of a period called sustainability transition.

The sustainability transition – similarly profound to the systemic transformation in Poland and other countries of Central and Eastern Europe in the 1980s and 1990s – entails political, economic, and social components, although now it is explicitly extended to include spatial (environmental) issues. As of November 2022, close to 90% of global emissions are under the commitment or are considered for net zero targets (Climate Action Tracker, 2022). This fact changes the understanding of sustainability from a trend or a fad to a biding development paradigm. Hence, especially during crisis situations, states, local governments, and companies that are best able to conduct coherent, long-term public policies and strategies have certain advantages and premiums stemming from foresight, planning, and preparation (Grewiński, 2021).

The planned economic transformation will sometimes cause disruptions and must therefore be just (European Commission, 2020). It requires alignment and cooperation among all stakeholders at all levels – EU, national, regional, local, and international. The transition to a low-carbon and circular economy in line with SDGs targets is crucial to ensuring the long-term competitiveness of the European Union economy (European Parliament, 2019), which only then will be in a position to flourish and create new job opportunities, without passing on risks and external costs to environments or communities (MSCI, 2023).

New, future-proof business models, i.e. companies, whose products and operations are aligned with material ESG (environmental, social, governance) requirements, will achieve a competitive advantage, benefitting its shareholders for decades. In fact, among European countries and companies across all industries it is already possible to determine preliminary champions and laggards of the sustainability transition. Notably, the countries of the Baltic Sea region[1] – Sweden, Finland, Latvia – and neighbouring Norway are leaders in Europe in terms of the share of energy coming from renewable sources (Eurostat, 2021).

To achieve and maintain competitiveness policymakers must usher in supportive regulatory, financial, and organisational settings, where piloting and scaling of innovations is possible. Given the complexity of the polycrisis at hand, multi-layer networks of actors, and sheer volume of financial and non-financial data, this requires transdisciplinarity in public policy design, implementation, and evaluation. These challenges are faced globally, within the European Union and the Baltic Sea region alike. In order to prioritize policy objectives, I propose an application of the human security concept, well known within political and academic circles.

Human security: concept overview

Human security involves broadening and deepening the security agenda with the emphasis on the relationship between peace and security, economic development, and human rights. It serves both as an analytical approach and as a programming framework that structures objectives of the sustainability transition, i.e. supports mechanisms to attain the SDGs.

> Human security perspective privileges the individual as the referent of security analysis. In this approach, military instruments (and expenditures) are only part of a much broader policy area that consists of several dimensions: climate security, health security, food security, economic security, cyber security, environmental security, etc.
>
> Tomasz Kaminski, Foreign and Security Policy, Liberal White Book 2023

Human security is grounded in the fundamental recognition of a simple, observable fact: all humans go through the same, aggregable phases in life (childhood, adolescence, adulthood). This cycle is accompanied by education, work, rest, and historically structured social risks that may or may not be realised during a person's life. Such risks include old age, being born with a disability or

[1] Nordic states are Denmark, Finland, Iceland, Norway, and Sweden. Baltic states are Estonia, Latvia, and Lithuania. Within this paper the Baltic Sea region is understood as democratic countries directly bordering the Baltic Sea. The fundamental analysis of public affairs (chapter 3) focuses on countries in the closest proximity to the Baltic Sea, i.e. it does not cover Iceland or Norway.

acquiring one with age, work-related injuries, other types of short- and long-term physical or mental health deterioration, involuntary unemployment, the death of a spouse. Pregnancy and parental leaves are also treated as social risks that require public support. This well-established and globally claimed legacy of the International Labor Organization, has been adopted via subsequent regulations of the Council of Europe and the European Union.

Human security recognizes these differing capacities and circumstances of people, while focusing on assuring the possibility to meet (a limited number of) basic human needs, which are well-defined in scientific literature, regulations, and international standards. From the policy design perspective this comprehensive understanding of a society – as singular, free, but entangled lives of individuals and families – allows for more effective, efficient, and elegant policy solutions, where foreseeable risks are factored in up front, managed as an investment and not a cost. This encourages the actual, medium- to long-term problem-solving, rather than short-term minimisation of harm which, as mentioned at the beginning of this paper, is deemed insufficient by leading economic institutions of the world.

Consequently, European democracies providing a more comprehensive security policy to European citizens, merging a traditional, military-oriented approach with the human security concept, becomes a policy objective of the highest urgency. Peaceful, democratic states facing military challenges require not only strategic investments in modern and networked military solutions, but also treating the conditions and quality of life of European residents as defence against and a model for non-democratic, partially free or unfree states (Freedom House, 2023). The prime examples are healthcare – which provides security for people during a pandemic or nurses them back to health whilst they are temporarily unable to work – as well as education, safeguarding Europeans from disinformation or extremisms.

Such threats undermine not only our comfort, stability, and security, but most importantly – our European democracy. The Baltic Sea region is geographically closest to this fight.

Baltic Sea: analysis from human security perspective

Macro-level considerations

Due to a shift in geopolitical realities it is prudent to re-evaluate the importance of the Baltic Sea. Russian large-scale invasion of Ukraine in 2022 caused a resurgence of NATO's eastern flank (Centre for Eastern Studies, 2016). While non-resilient, often long-distance supply chains witnessed inter alia during the pandemic, accelerated plans for green reindustrialisation of Europe (Green Deal Industrial Plan, 2023). Over 85 million Europeans live around the Baltic Sea in eight EU countries and Russia (Directorate-General for Maritime Affairs and Fisheries, 2023). The coastline of the Baltic Sea is estimated at approximately 8100 km, with five cities passing the one million mark in regard to number of inhabitants (see Figure 1).

Major cities on the coastline of the Baltic Sea	Population (metropolitan area) as of 2023
Saint Petersburg (Russia)	5 561 000
Stockholm (Sweden)	1 700 000
Copenhagen (Denmark)	1 381 000
Helsinki (Finland)	1 338 000
Tricity: Gdańsk, Gdynia, Sopot (Poland)	1 105 000
Riga (Latvia)	621 000
Tallinn (Estonia)	454 000

Figure 1. Population of major cities around the Baltic Sea (source: Eurostat, macrotrends.net)

Country-level data on select Sustainable Development Goals' targets for eight democratic countries (see Figure 2) in the Baltic Sea region shows divergence between them, stemming from various explanatory factors, including, but not limited to, the history of socialism, natural resources, demography, welfare state models, or societal traditions and norms.

Chosen SDGs include the following aspects of human security:

political security

- Perceived independence of the justice system (SDG 16, target 16.40)
- Confidence in EU institutions (SDG 16, target 16.60)

social security

- People at risk of poverty or social exclusion (SDG 1, target 1.10)
- Healthy life years (SDG 3, target 3.11)

economic security

- Gender pay gap (SDG 5, target 5.20)
- GDP per capita (SDG 8 target 8.10)
- Government gross debt (SDG 17, target 17.40)

environmental security

- Final energy consumption in households (SDG 7, target 7.20)
- Recycling rate of municipal waste (SDG 11, target 11.60)
- Circular material use rate (SDG 12, target 12.41)
- Greenhouse gas emissions (SDG 13, target 13.10).

Based on below metrics countries of the eastern flank (i.e. Estonia, Finland, Latvia, Lithuania, Poland) have lower scores compared to Denmark, Germany, and Sweden. Lithuania's performance is quite strong relative to the group, without lagging on any metric. For Estonia, Finland, and Poland environmental security, including energy and material loops, pose challenges. Economic inequalities in the region are visible, where the lowest value of GDP per capita equals to 25% of the highest amount.

		Population on 1 January	(absolute number)	2023	1365884	1883008	2857279	5563970	5932654	10521556	36753736	84358845
		First time asylum applicants	(absolute number)	2022	2940	545	905	4815	4475	14045	7700	217735
SDG	**SDG target**	**FACTOR**	**UNIT**	**TIME**	**Estonia**	**Latvia**	**Lithuania**	**Finland**	**Denmark**	**Sweden**	**Poland**	**Germany**
1	1_10	People at risk of poverty or so	% of the population	2022	25.2	**26**	24.6	16.3	17.1	18.6	15.9	20.9
3	3_11	Healthy life years	Years	2021	56.5	**53.8**	57.6	61.7	56.6	68.4	62.6	65.6
5	5_20	Gender pay gap	% of average gross hc	2021	**20.5**	14.6	12	16.5	14.2	11.2	4.5	17.6
7	7_20	Final energy consumption in h	Kilogram of oil equival	2021	725	638	582	**1076**	772	756	587	706
8	8_10	GDP per capita	Euro per inhabitant	2022	€ 16,250.00	**€ 13,280.00**	€ 15,100.00	€ 37,780.00	€ 51,660.00	€ 46,250.00	€ 14,620.00	€ 36,010.00
11	11_60	Recycling rate of municipal wa	Percentage	2021	**30.3**	44.1	44.3	39.0	57.6	39.5	40.3	67.8
12	12_41	Circular material use rate	Percentage		15.1	6.2	4	**2**	7.8	6.6	9.1	12.7
13	13_10	Greenhouse gas emissions	Tonnes per capita	2021	9.6	5.8	7.3	8.8	7.7	4.7	**10.7**	9.4
16	16_40	Perceived independence of th	% of the population	2022	60	53	52	88	84	74	**24**	76
16	16_60	Confidence in EU institutions	% of the population	2023	**42**	57	61	62	74	71	53	47
17	17_40	Government gross debt	% of GDP	2022	18.5	41	38.1	**73.3**	29.8	32.9	49.3	66.1

Figure 2. Country-level data on chosen Sustainable Development Goals' targets for eight democratic countries in the Baltic Sea region (source: Eurostat; the lowest score per row is bolded)

In the case of Poland, tensions related to the political situation can be noticed. The perceived independence of the justice system was at a record low level of 24% of the population, lagging behind the rest of the results within this SDG target. However, Poland's trust in EU institutions is more than twice as high. For Poland, recent years have been visibly difficult, which had been widely noted by the state's allies, European citizens at large, and financial market participants alike. A few of the troubling aspects include: departure from the path of the rule of law and the structural crisis of the judicial system; infringement on women's rights (i.e. reproductive health) and children's rights (i.e. high quality education, clean air); the lack of professionalism in policy making and governance (e.g. uneconomical use of public funds that exceeds tolerable levels of human error in complex systems). This situation caused unnecessary conflicts with the EU institutions and other allies in times of very high uncertainty. But as exemplified by 2023 parliamentary elections in Poland – this dangerous situation was amended.

With a record attendance of 74.38%, Polish citizens of all voting ages confirmed their commitment to democratic, European values – the commitment originally made in 1989. Polish citizens also did their best to respond to the humanitarian crisis of 2022 in a dignified and human-centred manner, coupled with continued and unwavering support for Ukraine's sovereignty.

While in the field of international relations it will take time to reestablish Poland as a reliable and trusted ally – one that is aware of global challenges, capable of harnessing their magnitude, and offering feasible and negotiated solutions – the country has a potential to put forward significant possibilities for mutually fruitful economic cooperation. Giving the country's young, well-educated workforce with an unprecedented affinity for the use of new, digital technologies, it is an ideal setting for innovations' scale-up projects that cannot be carried out in smaller or less populous territories.

It is expected that the new ruling majority will consist of nine political entities.[2] It will be a test of pluralism, maturity, and efficacy in decision-making for the common good of Poland's inhabitants. And within internal public affairs, aside from the above-mentioned mistakes that will need to be corrected without delay, other priorities declared by the winning, pro-democratic coalition include the decarbonisation of energy, industries, and buildings, as well as economic and social instruments improving the quality of live in a fiscally sound, meaningful, and long-term manner (e.g. the separation of state and church).

On country level, this wave of change begins new stage for the Baltic Sea region. One characterized by fully unified condemnation of non-democratic systems, greater stability and readiness for modern leadership and statecraft.

[2] According to the results of 2023 Sejm elections (PKW, 2023), it is expected that the government will be formed by a pro-democratic coalition consisting of entities that together have a majority of votes, i.e. the Civic Coalition, the Third Way Coalition and the New Left party. The Civic Coalition (Koalicja Obywatelska, KO) consists of four major parties, i.e. Civic Platform (Platforma Obywatelska, PO), Modern (Nowoczesna, N), Polish Initiative (Inicjatywa Polska, IPL), The Greens (Partia Zieloni, PZ), and one political movement AGROunion (AGROunia, AU). The Third Way Coalition (Trzecia Droga, TD) includes three major parties: Polish People's Party (Polskie Stronnictwo Ludowe, PSL), Poland 2050 (Polska 2050 Szymona Hołowni, PL2050), and Centre for Poland (Centrum dla Polski, CdP).

Macro-level considerations

(GEO)POLITICAL SECURITY: NATO LAKE

The Council of the Baltic Sea States (CBSS) is an intergovernmental organisation based in Stockholm. It consists of the ten foreign ministers of the CBSS member states and a high-level representative of the EU. The participating states are Denmark, Estonia, Finland, Germany, Iceland, Latvia, Lithuania, Norway, Poland, and Sweden. In March 2022, the members of the CBSS decided to suspend Russia in response to the unprovoked and illegal war being waged by Russia against Ukraine. In May 2022, Russia withdrew from the CBSS.

The CBSS acts in three dimensions: safe and secure region, sustainable and prosperous region, and regional identity (The Council of the Baltic Sea States, 2023), which shows an integrated approach to regions' development in line with best practices and the SDGs. This organisation constitutes a crucial subject that is able to coordinate joint efforts addressing shared nuisances, like hybrid warfare, that is endangering critical infrastructure security, cyber security, and socio-economic development. This has been exemplified by explosions shutting down the Nord Stream pipelines in 2022 and Balticconnector pipeline in 2023. Such events require a coherent system of crisis management, hopefully preempted by the common vision for supply chain resilience that, when attainable, does not subsidise non-democratic governments.

In October, Turkish President Recep Tayyip Erdoğan submitted a bill approving Sweden's NATO membership bid to parliament for ratification, a move welcomed by the alliance and Stockholm (Reuters, 2023). The joining of Sweden will be the final step towards implementing the NATO lake project, which will serve as the reminder, symbol of safety for the inhabitants of the eastern flank and has been received with a sigh of relief by varied groups of stakeholders, from political elites to the creators of an online meme culture.

There is also the unaddressed issue of the Kaliningrad Oblast, which is heavily militarised (including tactical nuclear weapons) and the only Russian Baltic Sea port that is ice-free all year (NASA, 2017), which gives it a strategic role in the maintenance of the country's Baltic fleet. Since the annexation of Crimea by the Russian Federation in 2014, there have been voices in media (LRT.lt, 2015) that the status of this territory should be reconsidered.

ECONOMIC SECURITY: WIND ENERGY

The Baltic Sea is amongst the most heavily trafficked seas in the world, with an approximate 15% share of global freight traffic (VASAB, 2016) and 22% of the total EU short shipping tonnages (Eurostat, 2023), as seen on Figure 3. The Baltic Sea has provided sustenance for the inhabitants around it for ages and soon it will provide renewable energy as well.

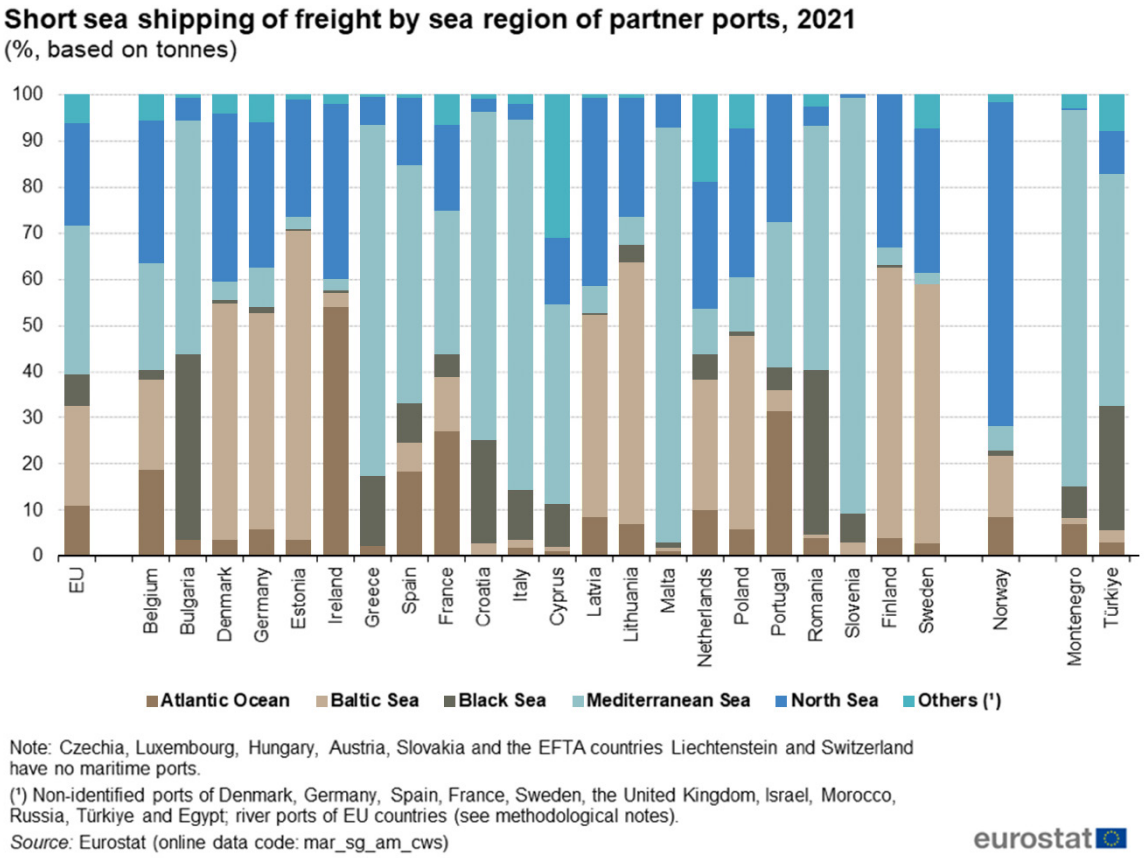

Figure 3. Short sea shipping of freight by sea region in 2021 (source: Eurostat)

The growth of the offshore wind industry in the EU is expected to multiply offshore wind capacity by four over the next decade (International Energy Agency, 2019). While offshore wind projects bear material biodiversity risks, which impact investment decisions of more desired, ESG-sophisticated investors, it is possible to safeguard such endeavours from causing any significant harm to the environment (a so-called DNSH principle outlined in the EU law).

Such efforts are worth the challenge, as offshore wind is 'in a category of its own, as the only variable baseload power generation technology' (International Energy Agency, 2019). Baseload power plants – typically large coal or nuclear plants – do not change their power output (in technical terms called capacity factor) quickly. Fortunately, the offshore wind turbines are not limited in size to the extent that onshore turbines are what, joined with other technology improvements, causes that large-scale offshore wind farms:

- match the capacity factors of efficient gas-fired power plants;
- match the capacity factors of coal-fired power plants in some regions;
- exceed the capacity factors of onshore wind;
- double the capacity factors of solar photovoltaics (International Energy Agency, 2019).

Therefore, offshore wind projects are an indispensable part of reaching the Paris Agreement targets, and are perfectly equipped to support other, more prosumer-oriented and local in scale solutions (which of course also add value to the energy mix by means of their spatial distribution increasing their security).

In 2022 the eight EU member countries around the Baltic Sea signed the **Marienborg Declaration,** committing themselves to closer cooperation on offshore wind.

> Russia's unjustified military aggression against Ukraine undermines international security and stability and has massively disrupted the European and global energy systems. Russia has weaponised Europe's dependence on Russian energy, which has underlined the need for strengthening the EU's energy security by phasing out Russian energy and decarbonising the energy sector.
>
> The Marienborg Declaration. The Baltic Sea Energy Security Summit (2022)

The signatories have set combined ambitions for offshore wind in the Baltic Sea region of at least 19.6 GW by 2030, seven times the current capacity (ca. 2.8 GW). The Baltic Sea has an enormous potential for such projects – surpassing 90 GW – but to date only Germany and Denmark own large-scale wind farms. Finland, Estonia, Latvia, and Lithuania expect their first farms to be operational by 2026-2030. Poland plans to add 6 GW by 2030 and 11 GW by 2040. Sweden expects an overall increase of 15 GW (Baltic Wind, 2022). States will pursue faster permitting processes and strive for a balanced coexistence of economic and ecological needs (The Marienborg Declaration, 2022).

Additionally, it is important to always remember that production of renewable energy also requires a secure and well-maintained distribution network. Hence the signatories will identify infrastructure network's needs that can ensure security of supply and affordable prices of energy for homes and businesses. This will be achieved by improved cooperation at the political level with the integral role of the Baltic Energy Market Interconnection Plan (The Marienborg Declaration, 2022).

ENVIRONMENTAL SECURITY: ECOSYSTEM SERVICES PROVISION

Earlier sections of this paper have established that the Baltic Sea, one of the busiest seas, is essential for the region's socio-economic dynamics. Unfortunately, it is also one of the most polluted bodies of water on Earth (HELCOM, 2018; Inácio, et al., 2020).

This disturbs the provision of ecosystem services, which are defined as contributions of ecosystems to the benefits that are used in economic and other human activity (Partnership for Biodiversity Accounting Financials, 2023). Examples of ecosystem services can include water supply, pollination, soil, and water quality, filtration, flood and storm protection, bioremediation of land,

maintaining habitats, mass stabilisation and erosion control, pest or disease control, fibres and other materials, and much more. These direct and indirect contributions to human well-being impact our survival, quality of life, and can (and should) be quantified in financial metrics. Today, ecosystem services are not appropriately priced by financial markets (TNFD, 2023).

> Declines in nature compromise the security of our societies and increase the risks to business and investors, including our ability to mitigate and adapt to climate change. Sustained improvements in the resilience of our natural world and its biodiversity are essential to secure the prosperity of current and future generations.
>
> Nevertheless, businesses today continue to see nature as an unlimited and free provider of critical inputs into their operations and value chains, from the flow of fresh water to the pollination services of bees and the flood mitigation services of mangroves. Future cash flows depend on the resilience of the future flow of these ecosystem services from nature.
>
> Recommendations of the Taskforce on Nature-related Financial Disclosures (2023)

With **six of the nine planetary boundaries already breached** (Stockholm Resilience Centre, 2023), it is clear that, for modern investors, nature risk is financial risk. 'Business as usual' is no longer an acceptable answer and nature can no longer be seen as a corporate social responsibility (i.e. philanthropic) issue, but as a strategic risk management issue. Therefore, ESG data must be regularly reported. Companies in a range of sectors, which have not managed their nature-related impacts, have experienced permit refusals and lawsuits, with associated deteriorations in credit ratings and market valuations (TNFD, 2023).

The above-mentioned breached planetary boundaries impact various regions, and the Baltic Sea is no exception. HELCOM's 2023 report is the third holistic assessment of the Baltic Sea, regarding the period between 2016 and 2021. Authors conclude that the Baltic Sea is under increasing impacts from climate change and biodiversity degradation, sped up by eutrophication, pollution (including submerged munitions from World Wars I and II), land use, and resource extraction. Little to no improvement of the Baltic Sea environment occurred during the assessment period. On the other hand, once stakeholders implement measures to reduce pressures on the Baltic Sea, they do produce desired results. For example, a current central objective is lowering the input of nutrients (biogeochemical flows: phosphate [P] and nitrogen [N] cycles; see Figure 4) to regionally agreed maximum levels. In some parts of the Baltic Sea such regional agreements have already been put in place resulting in achieving sustainable levels.

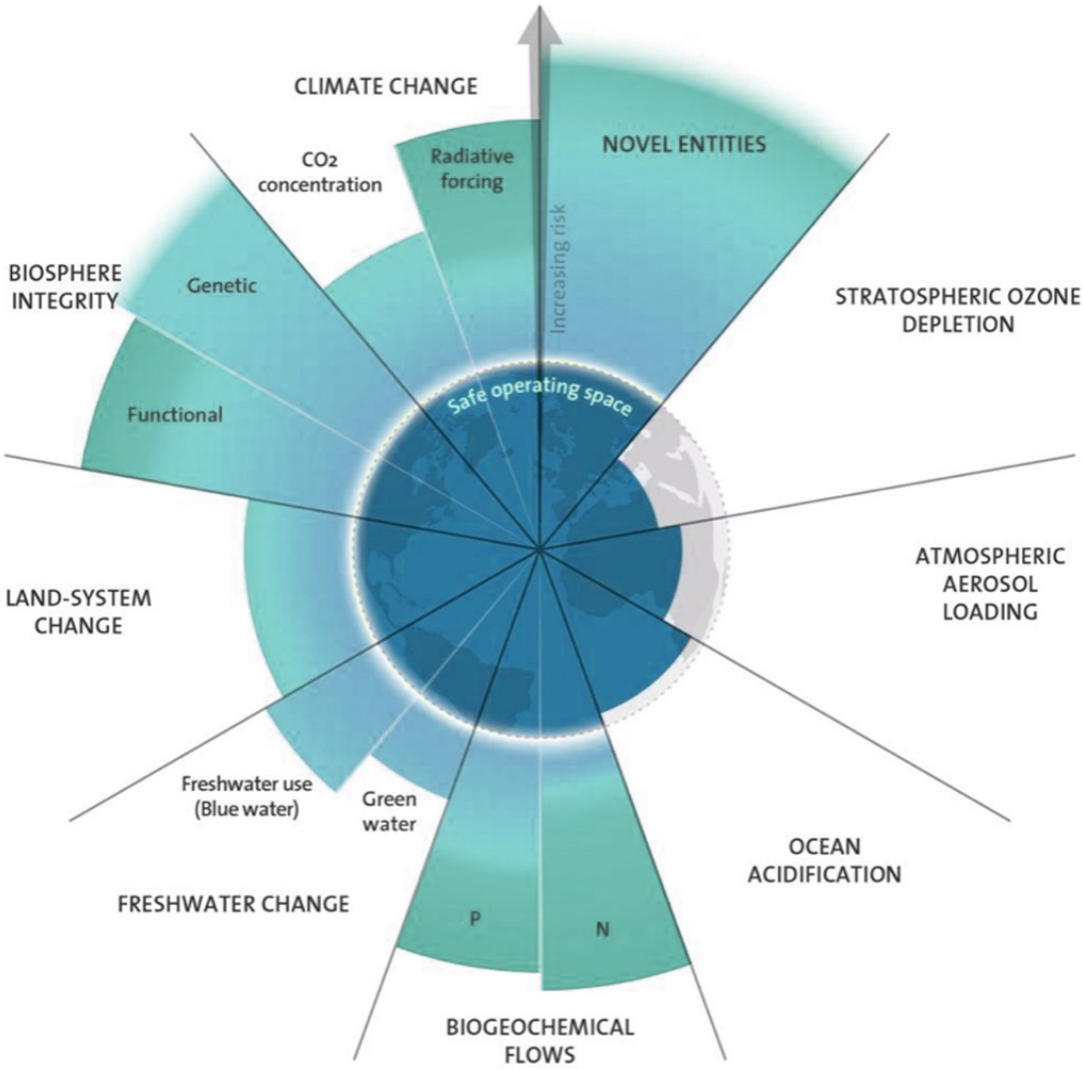

Figure 4. Planetary boundaries – 2023 update (source: Azote for Stockholm Resilience Centre, based on analysis in Richardson, et al., 2023; licensed under CC BY-NC-ND 3.0.)

Nutrient pollution (over-enrichment) leads to eutrophication, which manifests as elevated levels of algal and plant growth, increased turbidity, oxygen depletion, changes in species composition and nuisance blooms of algae (HELCOM, 2020). There are multiple ways of reducing eutrophication, it is crucial to identify the opportunities resulting from the spatial layout of a given area and to develop solutions tailored to its specific needs.

In short, such solutions can be nature-based or technological. A cost-effective, well-known, and relatively straight-forward nature-based solution (NBS) can include vegetative filter strips (also called buffers, i.e. certain types of trees, shrubs, grasses strategically planted between agriculture land and rivers; various factors must be considered e.g. soil texture, type of slope, width of filter). If done correctly, such solution assures perfect filtration of nutrients, hence they do not contaminate the fresh water, which may also be used for drinking purposes (Prosser, et al., 2020).

Circular technological solutions are also possible. The possibility of nutrient recovery from nutrient-rich wastewater (e.g. from farms) has been confirmed with the very high potentials of the recovered nutrient or nutrient fractions for reuse as fertiliser in agricultural practices (Saliu & Oladoja, 2021).

To summarise, the Baltic Sea Action Plan encompassing aspects of biodiversity, eutrophication, hazardous substances and litter, and sea-based activities remains highly relevant with an urgency of full implementation (HELCOM, 2023).

Trends: dependencies and impacts. Recommendations for the Baltic Sea region

Europe's sustainability transition depends on security and Europe's security depends on the sustainability transition. This is an example of a synergy, a win-win scenario.

The aim of SDG 16 is to promote peaceful societies, where all people have access to justice, while effective and accountable institutions foster social inclusion. Politics and policy-making is a challenging practice of leadership, where the mutual understanding and support between allies is immensely helpful. Of course, even the best of allies sometimes do encounter the divergence of their interests, yet this is no excuse to break off a conversation between parties if they all follow **the rule of law.**

European security requires investments related not only to its military capabilities, which is not disputed at any point, but also in renewable energy (SDG 7), resilient infrastructure (SDG 9), economic productivity (SDG 8), education (SDG 4), or strengthening global partnerships (SDG 17).

Similarly, a synergy can be expected in regard to impacts, understood as long-term positive effects, because both human security and just transition demand:

- good governance,
- implementation of innovations, and
- more universal and advanced production and use of data.

Governance is an understanding of politics and policy that goes beyond a narrow focus on the state. It is an intrinsically participatory and transdisciplinary endeavour with all its advantages and weaknesses (Schuppert, 2015). Whilst the ultimate decision-making powers lay in the hands of elected public leaders, such multi stakeholder cooperation on international and domestic levels will be required to finance all military, environmental, and societal needs.

Sovereigns already cooperate within established bodies, such as the previously mentioned the North Atlantic Treaty Organization, the European Union, or the Council of the Baltic Sea States. However, to assure agile cooperation regarding

infrastructural networks or healthy ecosystems closer engagements on sub-sovereign level are warranted.

For this purpose, authorities might want to consider establishing clusters, for example by utilising greatly underutilised NUT 3 regions[3]. They present manageable pieces of land – large enough for multifaceted investment analysis, yet small enough to serve as a feasible frame of reference for stakeholders' involvement followed by the feeling of an evident impact for the cluster's inhabitants. The aim of the cluster is to achieve a feasible level of security and self-sufficiency in a specific area by narrowing, slowing down, and closing material and energy loops. These activities should be oriented towards the realisation of the full potential of the area to meet the basic needs of present and future generations in a way that implements the values of social justice (Chmura, 2022).

Research and innovation are essential to ensure success or solvency of such investments. Policymakers, investors, and entrepreneurs are looking for new tools that offer not only explanatory analysis (i.e. why did something happen in the past?) – but more eagerly so – they hope to glean a forward-looking insight into possible risk and return profiles (MSCI, 2023b). This wish encounters at least three challenges related to data, methods, and workforce.

First of all, responsible military or financial decision-making is based on solid data. Data consistent with reality, neither over- nor underestimated, and delivered in a timely manner. The total amount of data created globally reached about 64 zettabytes in 2020 and is projected to grow to more than 180 zettabytes in 2025 (Statista, 2023). Unfortunately, the increase of data volume does not automatically improve its quality, coverage, availability, or granularity. Data gaps are still prevalent (Bloomberg, 2023), although the EU has a pioneering competitive advantage, as this year the European Commission adopted **the European Sustainability Reporting Standards (ESRS)** for use by all companies subject to the Corporate Sustainability Reporting Directive. The standards cover ESG issues, ensuring interoperability between EU and other global standards to prevent unnecessary double reporting by companies. The reporting requirements will be phased in over time (Directorate-General for Financial Stability, Financial Services and Capital Markets Union, 2023). For companies not yet well-versed in ESG, this introduces new types of operations within their company, which may be understandably stressful. For public and civic sectors this is an opportunity to encourage and support leaders of the private sector through their part in the transition.

Another data trend is a sharp 'spatial turn'. There is no way to make well-judged investment decisions without analysing **(geo)spatial data**, whether on the plot, local, regional, or sovereign scale (University of Oxford, 2023). Within this

[3] The Nomenclature of Territorial Units for Statistics (NUTS) is a geographical nomenclature dividing the economic territory of the European Union into regions at three different levels (NUTS 1, 2, and 3). NUTS are based on existing national administrative subdivisions. NUTS 1 is usually a whole country or its major socio-economic regions, NUTS 2 corresponds to regions or provinces, while NUTS 3 consists of counties or groups of municipalities (Eurostat, 2021b).

paper examples of geospatial data use include HELCOM (HELCOM, 2023) and International Energy Agency (International Energy Agency, 2019b). In contrast to qualitative or quantitative data, which is usually self-reported or estimated, spatial data is traceable and verifiable in nature (Caldecott, et al., 2022). It has limitations, nonetheless its usefulness has been proven (e.g. satellite imagery has been used for military purposes, forecasting commodity prices or evaluating ecosystem services) (NASA, 2022).

This leads to the second point, that is – not all scientific methods are equally equipped to make predictions. The shift of interest from explanation to forecasting can be represented by the growth **of spatial machine learning** in comparison to spatial econometrics, due to the limited predictive power of classical spatial models (Kopczewska, 2023). Machine learning has become a new analytical standard, but to be fully utilised for decision-making in the public, private, or civic sector it needs to be further refined, which cannot happen without interdisciplinary dialogue. This requires using 'the same language' (Kopczewska, 2022) – a language that is understandable to all parties involved, regardless of the discipline they represent.

Finally, this brings us to the third aspect – **workforce**. Data analysts and data scientists represent one of the most in-demand, high-paying jobs, alongside AI and machine learning specialists and sustainability specialists (World Economic Forum, 2023). The median salary for an experienced data scientist in California is approaching $200,000 (Harvard Business Review, 2022). The US Bureau of Labor Statistics has estimated that the employment rate for data scientists (which are typically senior positions, after data analyst level) will grow by 35% from 2022 to 2032 – much faster than the 3% average growth rate for all occupations (U.S. Department of Labor, 2023). Market demand poses a question to decision-makers about educational programs in these areas – quality of curricula, working conditions of staff, governance, funding, and availability for people on different levels of advancement.

The definition of peace is the absence of war. However, today, in times of hybrid warfare, this definition needs to be amended by the addition of social, environmental, and economic issues. The goals of achieving and maintaining a state of sustainable development have been endorsed by the authorities of all countries in the United Nations General Assembly. Sustainable development of municipalities, cities, regions, states, the EU – our communities – is a transdisciplinary task, which does not focus only on one system (e.g. infrastructure, energy, construction, transport, food, resource or environmental management). Sustainable development covers and should pervade all sectoral domains.

The sustainability transition is also a process that goes beyond the competences of one sector, therefore it requires governance. Representatives of the public sector need the support of the private sector, and vice versa. The support from the civic sector is integral – understood either as residents who demand that their leaders take appropriate actions, or as conscious consumers who support

companies that are champions in the sustainability transition. Informal groups, non-governmental organisations, and academia also play an indispensable role, because they can support the production and analysis of data, as well as raise public awareness. All these stakeholders in order to achieve success – lasting change – must support and influence each other in a coordinated manner. Achieving the SDGs will not happen by accident. Multilateral and international cooperation is necessary; stable legal and financial conditions are crucial. The results of efforts undertaken today will benefit us – and safeguard future generations.

Author bio

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Bibliography

Baltic Wind, (2022). The Marienborg Declaration: Baltic Sea Countries declare more cooperation in offshore wind. [Online] Available at: https://balticwind.eu/the-marienborg-declaration-baltic-sea-countries-declare-more-cooperation-in-offshore-wind/

Bloomberg, (2023). [Online] Available at: https://www.bloomberg.com/company/press/bloomberg-survey-reveals-increasing-demand-for-esg-data-but-data-management-challenges-persist/

Caldecott, B., McCarten, M., Christiaen, C. & Hickey, C., (2022). Spatial finance: practical and theoretical contributions to financial analysis. Journal of Sustainable Finance & Investment.

Centre for Eastern Studies, (2016). NATO's Eastern Flank – a new paradigm. [Online] Available at: https://www.osw.waw.pl/en/publikacje analyses/2016-07-13/natos-eastern-flank-a-new-paradigm

Chmura, A., (2022). The transformation of Buiksloterham as a possible pattern of circular development of Warsaw. Warszawa.

Climate Action Tracker, (2022). [Online] Available at: https://climateactiontracker.org/global/cat-net-zero-target-evaluations/

Directorate-General for Financial Stability, Financial Services and Capital Markets Union, (2023). [Online] Available at: https://finance.ec.europa.eu/news/commission-adopts-european-sustainability-reporting-standards-2023-07-31_en

Directorate-General for Maritime Affairs and Fisheries, (2023). Our Baltic conference. [Online] Available at: https://oceans-and-fisheries.ec.europa.eu/our-baltic-conference_en

Entsalo, H., Kalimo, H., Kautto, P. & Turunen, T., (2023). Analysing regulatory instruments in sustainability transitions: A combined 'intervention points' and 'roles of law' approach to the European Union's Ecodesign framework. Sustainable Production and Consumption, Volume 42, pp. 125-137.

European Commission, (2020). A new Circular Economy Action Plan For a cleaner and more competitive Europe. [Online] Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020DC0098

European Parliament, (2019). Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector. [Online] Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32019R2088

Eurostat, (2021). [Online] Available at: https://ec.europa.eu/eurostat/databrowser/view/NRG_IND_REN__custom_2076933/bookmark/table?lang=en&bookmarkId=c19d2992-11d6-440f-b18a-107f950d8f43

Eurostat, (2021). NUTS - Nomenclature of territorial units for statistics. [Online] Available at: https://ec.europa.eu/eurostat/web/nuts/background

Eurostat, (2023). Maritime transport statistics - short sea shipping of goods. [Online] Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Maritime_transport_statistics_-_short_sea_shipping_of_goods

Freedom House, (2023). [Online] Available at: https://freedomhouse.org/explore-the-map?type=fiw&year=2023

Green Deal Industrial Plan, (2023). [Online] Available at: https://commission.europa.eu/document/41514677-9598-4d89-a572-abe21cb037f4_en

Grewiński, M., (2021). Usługi społeczne we współczesnej polityce społecznej. Warszawa: Elipsa.

Harvard Business Review, (2022). Is Data Scientist Still the Sexiest Job of the 21st Century?. [Online] Available at: https://hbr.org/2022/07/is-data-scientist-still-the-sexiest-job-of-the-21st-century

HELCOM, (2018). State of the Baltic Sea – Second HELCOM holistic assessment 2011–2016 (PDF). [Online] Available at: https://helcom.fi/baltic-sea-trends/holistic-assessments/state-of-the-baltic-sea-2018/reports-and-materials/

HELCOM, (2020). [Online] Available at: https://helcom.fi/baltic-sea-trends/eutrophication/

HELCOM, (2023). State of the Baltic Sea. Third HELCOM holistic assessment 2016-2021. Baltic Sea Environment Proceedings n°194., Helsinki.

IMF, (2023). [Online] Available at: https://www.imf.org/external/pubs/ft/ar/2023/in-focus/cost-of-living-crisis/

Inácio, M. et al., (2020). Ecosystem services of the Baltic Sea: An assessment and mapping perspective. Geography and Sustainability, 1(4), pp. 256-265.

International Energy Agency, (2019). Offshore Wind Geospatial Analysis. [Online] Available at: https://www.iea.org/data-and-statistics/data-tools/offshore-wind-geospatial-analysis

International Energy Agency, (2019). Offshore Wind Outlook 2019, Paris.

Kopczewska, K., (2022). Spatial machine learning: new opportunities for regional science. The Annals of Regional Science, Volume 68, p. 713–755.

Kopczewska, K., (2023). Spatial bootstrapped microeconometrics: Forecasting for out-of-sample geo-locations in big data. Scandinavian Journal of Statistics, 50(3), pp. 1391-1419.

LRT.lt, (2015). Ar Karaliaučiaus statusas turėtų būti peržiūrimas?. [Online] Available at: https://www.lrt.lt/naujienos/pasaulyje/3/65279/ar-karaliauciaus-statusas-turetu-buti-perziurimas

MSCI, (2023). How Asset Owners Are Preparing for the New Era of Investing. [Online] Available at: https://www.msci.com/www/blog-posts/how-asset-owners-are-preparing/04158617294?utm_source=pardot&utm_medium=email&utm_campaign=+2023_MSCI+Weekly_11-02

MSCI, (2023). Human-Rights Due Diligence: Companies' Preparedness for the EU's CSDDD. [Online] Available at: https://www.msci.com/www/blog-posts/human-rights-due-diligence/04154266408?utm_source=pardot&utm_medium=email&utm_campaign=+2023_MSCI+Weekly_11-02

NASA, (2017). [Online] Available at: https://earthobservatory.nasa.gov/images/51793/kaliningrad-baltic-sea-russia

NASA, (2022). Evaluating Ecosystem Services with Remote Sensing. [Online] Available at: https://www.youtube.com/watch?v=V0axHKpyYrw

OECD, (2022). [Online] Available at: https://www.oecd.org/ukraine-hub/policy-responses/the-supply-of-critical-raw-materials-endangered-by-russia-s-war-on-ukraine-e01ac7be/

Partnership for Biodiversity Accounting Financials, *(2023).* PBAF Standard: Assessment of dependencies on ecosystem services, PBAF.

PKW, 2023. Results of voting in (2023) elections for Sejm. [Online] Available at: https://wybory.gov.pl/sejmsenat2023/en/sejm/wynik/pl

Prosser, R. S. et al., (2020). A review of the effectiveness of vegetated buffers to mitigate pesticide and nutrient transport into surface waters from agricultural areas. Journal of Environmental Management, Volume 261, p. 110210.

Reuters, (2023). [Online] Available at: https://www.reuters.com/world/turkeys-erdogan-submits-swedens-nato-bid-parliament-ratification-presidency-2023-10-23/

Saliu, T. D. & Oladoja, N. A., (2021). Nutrient recovery from wastewater and reuse in agriculture: a review. Environmental Chemistry Letters, Volume 19, p. 2299–2316.

Schuppert, G. F., (2015). Governance. In: J. D. Wright, ed. International Encyclopedia of the Social & Behavioral Sciences. Elsevier, pp. 292-300.

Statista, (2023). [Online] Available at: https://www.statista.com/statistics/871513/worldwide-data-created/

Stockholm Resilience Centre, (2023). Planetary boundaries. [Online] Available at: https://www.stockholmresilience.org/research/planetary-boundaries.html

The Council of the Baltic Sea States, (2023). [Online] Available at: https://cbss.org/

The Marienborg Declaration, (2022). [Online] Available at: https://www.regeringen.dk/media/11544/the-marienborg-declaration-_300822.pdf

TNFD, (2023). Recommendations of the Taskforce on Nature-related Financial Disclosures, London.

Scientists. [Online] Available at: https://www.bls.gov/ooh/math/data-scientists.htm

United Nations, (2021). Human Security and Agenda 2030, UN Trust Fund for Human Security.

University of Oxford, (2023). Spatial Finance Initiative. [Online] Available at: https://www.cgfi.ac.uk/2023/03/state-and-trends-of-spatial-finance-2023/

VASAB, 2016. Baltic LINes (2016): Shipping in the Baltic Sea – Past, present and future developments relevant for Maritime Spatial Planning. [Online] Available at: https://vasab.org/see-the-report-shipping-in-the-baltic-sea/

WHO, (2022). Statement: The European Region is in a "permacrisis" that stretches well beyond the pandemic, climate change and war. [Online] Available at: https://www.who.int/europe/news/item/27-09-2022-statement-the-european-region-is-in-a-permacrisis-that-stretches-well-beyond-the-pandemic-climate-change-and-war

World Economic Forum, (2020). [Online] Available at: https://www.weforum.org/press/2020/01/half-of-world-s-gdp-moderately-or-highly-dependent-on-nature-says-new-report/

World Economic Forum, (2023) Future of Jobs Report, Geneva.

World Inequality Lab,(2022). [Online] Available at: https://wir2022.wid.world/executive-summary/

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