Global Catastrophic Risks 2023

Managing risks through collective action

Global Challenges Foundation

GLOBAL CATASTROPHIC RISKS 2023: MANAGING RISKS THROUGH COLLECTIVE ACTION

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JENS ORBACK

Dear reader,

2024: Overshadowed by intersecting global risks and a global governance architecture that is not fit for purpose, a new year offers new chances. Now it is up to us if we take them. This report looks into the risks at stake and explores how we can approach a comprehensive overhaul of global governance to address them.

Among risks that threaten our societies, this year's report focuses on three of the most prominent – climate change, ecological collapse, and weapons of mass destruction. It examines how they have each developed, but also how they interact and exacerbate one another. For example, resource scarcity driven by climate change can spark conflict. Rising sea levels and more frequent extreme weather events also threaten the safety of nuclear facilities. When climate and environment intertwine with peace and security, we need a paradigm shift in multilateral cooperation.

The stark reality, underscored by our contributors, is that time is not on our side. We stand close to crossing six of the nine planetary boundaries that define a safe operating space for humanity. Moreover, when we factor in 'safe and just' limits – considering both Earth's stability and human welfare – the situation is even more threatening.

The authors in this report show that the pathway to effective global governance demands a dual strategy: immediate pragmatic actions and visionary, 'blue-sky' thinking. For instance, when considering how to address the global governance of nuclear risk, it is important to both support the immediate work of the International Campaign to Abolish Nuclear Weapons (ICAN) and to get more states to sign up to the ban.

The clock is ticking - yet it is not too late.

However, it's not just about policy; it's also about inclusivity. We must bring more people affected by global risks into the conversation. Civil society must be included in policymaking to protect ecosystems, and non-nuclear states must be included in non-proliferation discussions. Only by amplifying diverse voices can we engineer solutions that have legitimacy and resonate universally.

The clock is ticking - yet it is not too late. Meaningful steps have been taken and can be taken again. The Earth, with its built-in resilience, presents us with an opportunity – a chance for humanity to reconstruct our collaborative endeavors and forge a safer world.

Jens Orback

Executive Director,
Global Challenges Foundation

Approach

There are many factors affecting the way human beings live and cope on this planet. When looking at humanity as a group – and over a longer perspective – climate, technology and the way we take decisions together are the most critical. This report presents an overview of the global catastrophic risks the world currently faces with these crucial factors in mind. Expert analysis of the latest scientific research can guide us to more efficient governance models.

When preparing this report, we aimed to develop an approach that would reflect the best current understanding of global risks, to aid decision-makers in governance reform. We chose to focus the report on three of the most significant threats of today: climate change, ecological collapse and weapons of mass destruction. While distinct, these risks closely intersect and exacerbate one another, presenting a complex challenge for those working to manage and mitigate them.

Through a series of essays from academic and policy experts, as well as civil society representatives, the report examines how these risks overlap, where current systems of global governance are lacking in the face of such complexity, and how they could be improved. Against a backdrop of increasing pressure on governments to identify new approaches to address converging risks, we offer the short- and long-term governance solutions presented in this report as a tool for decision makers around the world.

During 2024 the Global Challenges Foundation will continue to support multilateral cooperation in order to tackle these threats. New technologies can help us. But that is another argument for improved global governance, for the impact of technologies is decided by those who have control over them.

CLIMATE CHANGE

Extreme weather events have led to increased deaths in all regions. Millions of lives and homes have been destroyed in droughts and floods, while millions more face extreme hunger. We are dangerously close to triggering climate tipping points, beyond which we face a high risk of large-scale, irreversible change, pushing the planet further away from conditions relied upon by all life on Earth.

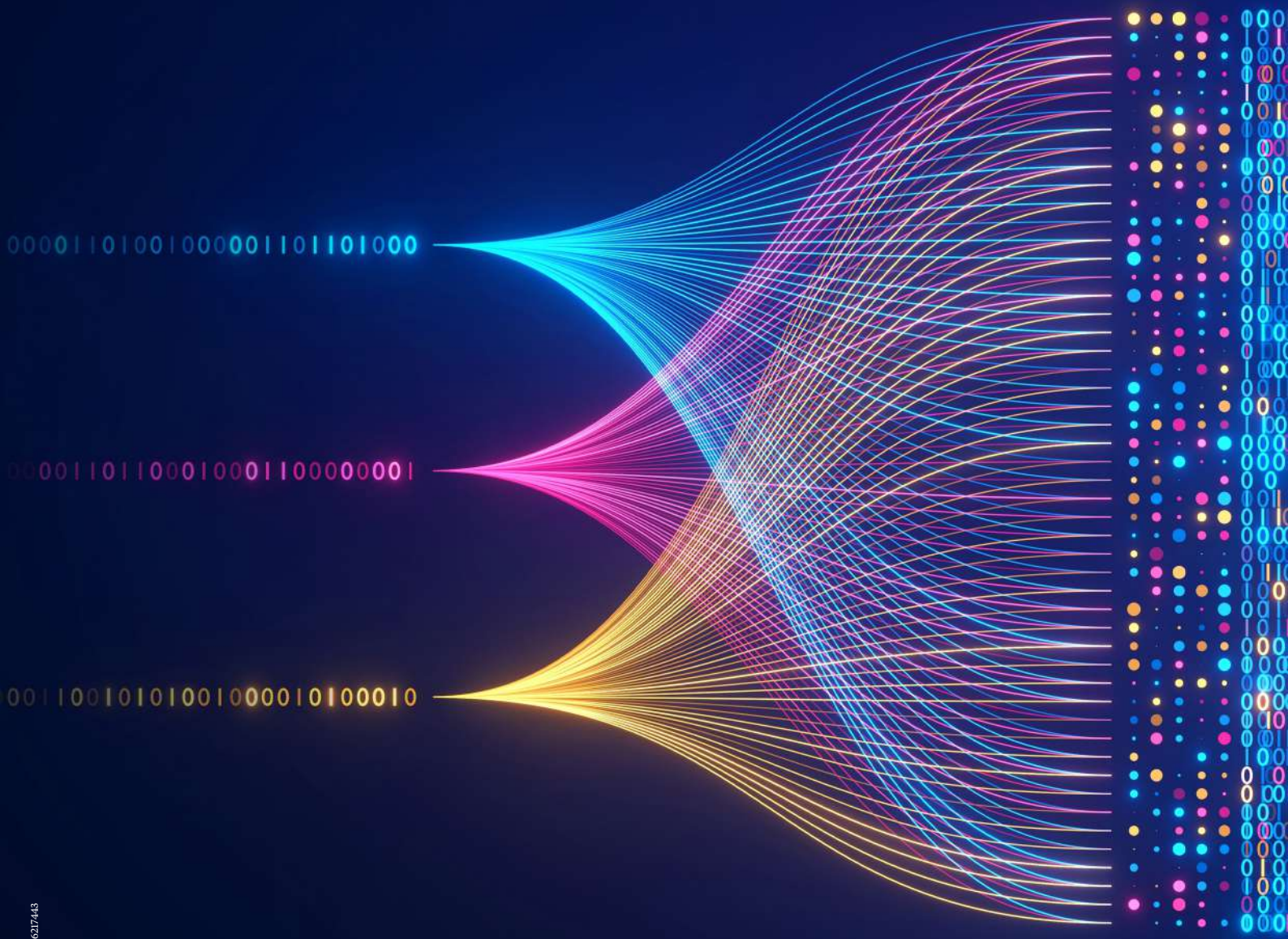
WEAPONS OF MASS DESTRUCTION

Nuclear weapons can cause widespread devastation and long-lasting environmental consequences, inflicting harm on every country on Earth. Despite such universal impact, discussions and solutions on nuclear weapons have traditionally centred around the nine nuclear-armed states, leaving the majority of the global community largely voiceless.

ECOLOGICAL COLLAPSE

Six of the nine systems and processes that provide the life-supporting functions of our planet are now outside their safe operating space, having transgressed Planetary Boundaries. This damage has extensive knock-on impacts, including food insecurity, water scarcity, accelerated climate breakdown and loss of planetary reliance.

Risks: the scientific context



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Safe and just earth system boundaries

What are they?

Newly quantified boundaries which account for both the biophysical conditions to maintain a stable planet to underpin life on Earth ("safe"), as well as assessing how significant harm to humans and other species can be avoided ("just").

△ **Safe** boundaries ensure stable and resilient conditions on Earth, often set in relation to climate tipping points.

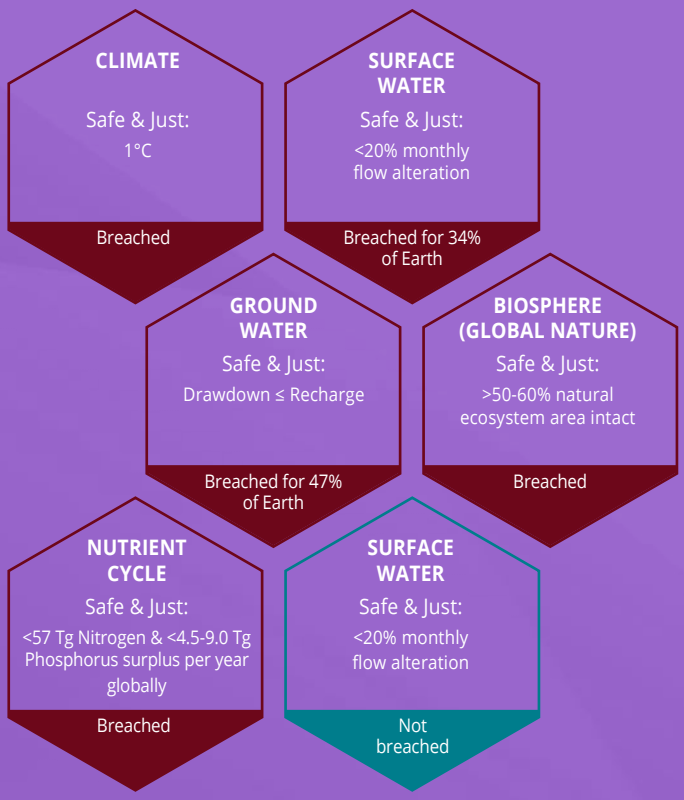
△ **Just** boundaries minimise human exposure to significant harm, such as loss of lives, livelihoods or incomes, displacement, loss of food, water or nutritional security, chronic disease, injury or malnutrition.

How are they different?

Past scientific attempts to define environmental boundaries, such as the Planetary Boundary Framework, have looked only at the global conditions needed to maintain a stable planet and safeguard life on Earth. The new research explores what is needed to ensure that equity and justice are not undermined due to changes in the Earth system.

Why do they matter?

The Earth Commission has quantified safe and just boundaries for climate, biodiversity, fresh water and different kinds of pollution to air, soil and water. Staying within these new boundaries is essential to protect both the stability of the planet and the safety of its inhabitants. Worryingly, most have already been breached.



A just and equitable approach is essential to planetary stability. We cannot have a biophysically safe planet without justice.

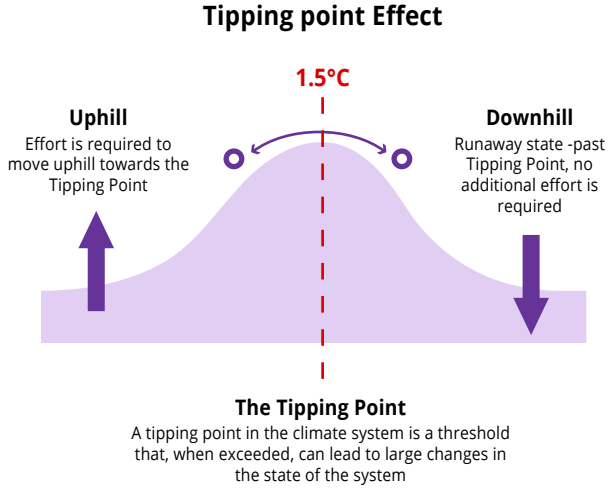
Prof. Joyeeta Gupta,
Co-Chair of the Earth Commission

JOHAN ROCKSTRÖM

Outside safe operating space

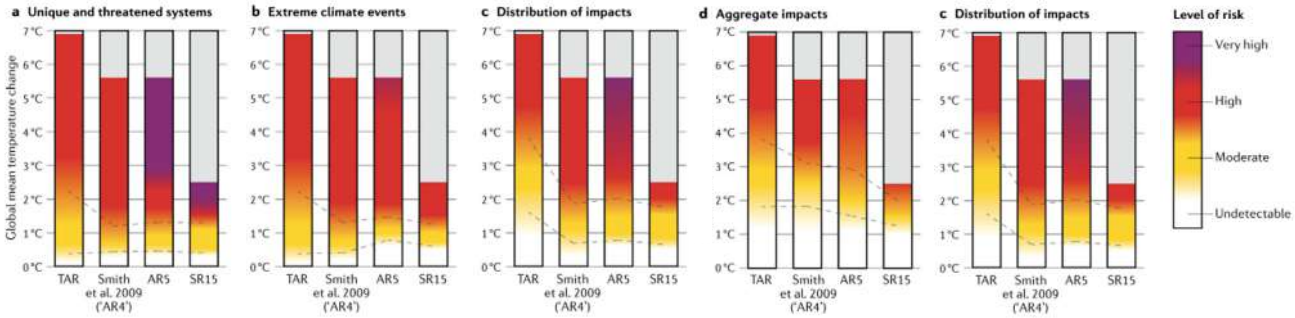
Six of the nine systems and processes that provide the life-supporting functions of our planet are now outside their safe operating space, having transgressed Planetary Boundaries (Richardson et al., 2023). Although our knowledge of how this will play out differs depending on how advanced the science is, we do know that the risk of destabilizing our planet as a whole is now rising sharply. This puts us at risk of permanently undermining the livability of our planet for all humans, in terms of everything from water, food, and health to security.

...there is no safe future for humans on Earth without respecting all nine Planetary Boundaries.



In the case of climate change, crossing the Planetary Boundary, with little sign of slowing down in the near future, brings the Earth system ever closer to known tipping points, beyond which we face high risk of large-scale, irreversible changes, pushing the planet further on a drift away from conditions that have supported humanity since the dawn of civilisation. For the Greenland ice sheet (GIS), the West Antarctic ice sheet (WAIS), tropical coral reef systems and abrupt thawing of permafrost in the Arctic, the latest science foresees a high risk of tipping beyond 1.5°C global warming (Armstrong McKay et al., 2022). (Averaged over a decade, the Earth has now warmed 1.14°C compared to pre-industrial conditions due to human activity, and most of this warming has taken place in the last 50 years). The hundreds of scientists involved in the latest assessment of the Intergovernmental Panel on Climate Change arrived at a similar conclusion in their iconic burning embers graphic: between 1.5°C and 2°C the risk of "large-scale singular events", essentially tipping events, moves from moderate to high.

Already, if the early tipping elements are triggered (GIS and WAIS), we would commit future generations to 10 meters sea level rise, permanently ruin the livelihoods for hundreds of millions of people depending on coastal tropical reef ecosystems, and trigger feedbacks that would accelerate warming even further. It would not cause an abrupt collapse, but push planet Earth further away from the stable state that our civilization, our modern world, relies on.



Tipping points in large-scale biological systems due to a combination of land-use and climate change are also drawing nearer. For example, there are already signs that the ability of the Amazon rainforest to be a net sink of carbon is slowing down, and deforestation and warming temperatures could be close to triggering a transition to a much more sparsely-vegetated savannah state. This loss of Earth's richest terrestrial ecosystem in terms of biological diversity, would not only affect millions who live in the region, it would have far-reaching consequences for the global carbon cycle, alter rainfall patterns in central and southern South America and the implications for climate would be felt even farther afield.

With the transgression of planetary boundaries, the ability of Earth to adapt to and buffer the pressure of unrelenting human activity, while still maintaining the conditions under which human civilizations as we know them have developed and flourished, is waning. This resilience stems from the interactions of the physical and biological systems and processes that make up our Earth system, which dampen shocks and stresses resulting from climate and other environmental change. It can be thought of as the elastic memory in the Earth system, always pulling it back towards its pre-Anthropocene state. CO2 fertilization describes one such interactive mechanism: rising atmospheric CO2 concentration drives higher plant growth, leading to an increase in the amount of carbon absorbed, and thus acting to draw carbon out of the atmosphere. Under the pressure of human activity, beyond planetary boundaries, these same interactions can rather reinforce each other, repelling the Earth system further away from its safe operating space.

Even without the self-reinforcing implications of crossing tipping points, the sum total of current political will to reduce greenhouse gas emissions has put the world on a path to around 2.7°C global warming above pre-industrial levels by the end of this century. Over the past three million years we have never exceeded 2°C, and our civilisations have developed at 0.5°C of maximum warming beyond the pre-industrial average temperature of 14°C on Earth. A disastrous ≈3°C warming would not only exacerbate the already-palpable increase in devastating extreme weather events, it would represent a perturbation of the climate so extreme that one third of the global population – more than 2 billion people – would be living in regions where average temperatures lie outside the human climate niche (Lenton et al., 2023). With threats to health, food and water security, such warming levels would threaten social stability, with the burden of risk resting heavily on the shoulders of those already experiencing the most severe impacts of climate change.

Irrespective of the current climate-mitigation policies and targets being realized, an overshoot of the Paris global warming target of 1.5°C has become close to inevitable (Rogelj et al., 2023). At the current rate of GHG emissions from fossil-fuel burning, land use change and industrial pollution, we are likely to breach the 1.5°C limit in the next 10-15 years.

The risks associated with temporarily overshooting 1.5°C are not well studied, but first results highlight that, again, the most detrimental effects will be disproportionately felt by the world's most underdeveloped countries (Bauer et al., 2023). One thing is however certain, more than 1.5°C global warming will be an unparalleled stress test for our planet. Earth's natural defences, spearheaded by the buffering capacity of the biosphere, will be essential to fending off systemic change that could compromise the conditions that have allowed humans to thrive.

The most recent assessment of the health of our planet as a whole illuminates a previously dark corner of global risk analysis: there is no safe future for humans on Earth without respecting all nine Planetary Boundaries. Decarbonising the global energy system alone is not enough. In fact, pushing too far on the other Planetary Boundaries relating to land, biodiversity, nutrients, water and pollutants, can, on its own, push Earth through the 1.5°C limit. Only when respecting the deep interconnectedness of the Earth system, the bedrock of its resilience, can risk with global environmental change be reduced.

On a more hopeful note, we also have the evidence that despite the Anthropocene pressures on the planet, manifested in the breaching of all biosphere boundaries, Earth still holds a significant degree of resilience, continuing to buffer the climate and ecological abuse posed by the unsustainable human enterprise. In fact, the emerging best possible future for humanity on a safe landing on climate, is to cope with a period of overshoot (several decades of > 0.1-0.3°C overshoot), before returning back to within a safe 1.5°C world by 2100. But what is it that will bring us back from overshoot? Well, it is quite straightforward:

1. decarbonise the world economy by 2050 following the IPCC and the Carbon Law (cutting emissions by half each decade starting with 2030),

2. return back to the safe space on terrestrial and ocean boundaries, and

3. hope that no tipping points are permanently crossed.

In the end, it is very likely the oceans that will determine whether or not we can cool the planet after overshoot, which in turn hinges on the biological, physical and chemical health of our marine systems on Earth.

DAVID OBURA

Equity in action: global to local

Two major updates of the planetary boundaries framework were published in the last few months.[1] They reinforce what is now commonly seen in public media from local to global levels – that humanity is crossing an increasing number of limits of our single earth system. We are accelerating, rather than decelerating, into the Anthropocene. A key advance is that one of these updates expanded on the justice dimensions of crossing planetary limits. This is a critically important advance as it addresses the fears of many developing countries and disadvantaged groups of what should be done and by whom, in returning within planetary limits.

Three elements of planetary (in)justice have been clear for many years, sharpened by climate change. First and most obviously, some parts of the global (and national) populations are far more vulnerable to climate impacts. This is amplified by two further injustices: the same people have contributed least to the drivers of climate change (damage, in the figure), and in the process, their fair share of the global carbon budget has been appropriated by others, thereby limiting their available pathways to development

The new work lays out two further injustices.[2] While the study reinforces the identification of 1.5°C as a 'safe limit' for warming[3], given the demonstrated vulnerability of millions of people to climate-related hazards already, and of some countries to inevitable drowning by sea level rise from historic emissions, that a 'just' limit has already been crossed in the last decade, with unjust exposure of hundreds of millions of people already at 1°C warming.

The second new dimension is that certain of the planetary boundaries are actually expressed at local levels, not global. For example, one aspect of the biosphere boundary, the provisioning of ecosystem services – such as pollination by insects, or protection of soils from erosion by overlying vegetation – operates locally, down to scales of 1 km or less. And because of this localization, they must be active at the scale of individual people, for those people to have just access and be able to benefit from them.

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WHY IS THIS IMPORTANT TO MITIGATE AND ADDRESS GLOBAL RISK EQUITABLY?

Agenda 2030 of the United Nations and its Sustainable Development Goals (SDGs), requires that no-one be left behind, that the benefits of nature and global society be shared with all people on the planet.

Among the key tools for protecting all people from global risks, are platforms that integrate sciences and knowledge relevant to specific risks, to feed these into policy frameworks. The IPCC has been established to do this for climate change, and IPBES for loss of biodiversity and its benefits to people. But these platforms address just some of the SDGs. Other key elements, such as food, water and disease risks do not yet have dedicated integrated platforms, and the existing ones do not necessarily cover sufficient elements of their risks and interactions. What is needed is a global 'safety net' that integrates knowledge and addresses risk across all countries, and down to local levels.

Multiple efforts are seeking solutions to this challenge – the Global Challenges Foundation sponsored a concept note[4] on a component of such a safety net, focused around 'earth system risk task forces' that add functionality and responsivity to existing platforms, to specific challenges (such as polar glacier melt, or coral reef collapse). A Science-Policy Action Network is envisioned by the UN Secretary General's High Level Advisory Board (HLAB) in its recommendations] for emerging priorities in reforming the United Nations.[5] Emerging from increasingly integrated food systems sciences and networks the 'Montpellier process'[6] envisages 'pooling collective intelligence' through linking science-policy platforms to better address sustainable development challenges.

A critical challenge is to make these global initiatives relevant to the lives of the most vulnerable people, in highly diverse and contextualized local spaces.

The Global Challenges Foundation concept note on reducing earth system risks[7] envisions an approach that builds from the bottom up[8], starting with local contexts to identify what solutions might be most relevant to realities on the ground. This bottom-up process both enables and requires engagement and inclusion, assuring the right voices and rights-holders are engaged from the beginning. it incorporates three main elements:

First is to **minimize exposure** of people to any hazard, and **reduce sensitivity**. As local areas become heavily populated, people are forced to inhabit marginal locations previously avoided because of their high exposure, such as low-lying flood plains exposed to flooding, or hillsides at risk of landslides. This often is accompanied by poor governance that also allows environmental and building standards to be ignored, amplifying both exposure and sensitivity.

Second, the state of locally-expressed planetary boundaries is determined by **local assets**. For example, in places where lakes, rivers and wetlands have been modified or their natural processes and recharge interrupted, restoring them also restores the functions and benefits they supply, including those that reduce risk. The state of local natural assets is well within the control of local actors dependent on them, so investing in and supporting actors and governance may be of equal or even greater importance to, investing in direct action on the state of the assets.

Third, and a critical enabler of the first two, is **addressing the full dimensions of justice laid out by the latest understanding of planetary boundaries**. These include the five dimensions outlined earlier – unequal vulnerability among people, unequal contribution to the problem, unequal consumption of fair shares, unequal access to benefits, and that unjust exposure at local levels can precede the crossing of global limits.

All of these injustices disadvantage poorer communities and poorer countries. But in ways only now being reinforced by science, the local dimension of critical planetary boundaries provides powerful leverage through which justice is a primary solution. For all the ways in which nature provides solutions that support people, i.e. across all the classes of contribution from nature identified by IPBES, 'nature-based solutions' are key to meeting these needs. And for the locally-determined benefits the rebuilding of nature to provide these solutions across all local spaces can be a primary mechanism for addressing multiple dimensions of justice.

In thinking about what this means for addressing Anthropocene threats it is important to focus on local assets and 'nature based solutions', to build from the ground up:

- equity must drive decision-making as it is the foundational criterion that can identify fair direction of resource flows, and to turn nature-negative activities to nature- and people-positive ones. A simple heuristic is to identify the places and contexts where there is a justice deficit in any of the five dimensions indicated, to redirect resources to redress these;

- focus on natural assets as the foundations of resilience and welfare in all local spaces, down to 1 km2 scales. It is only by building up these natural assets will we be able to secure peoples' resilience to multiple, and often surprising, future hazards.

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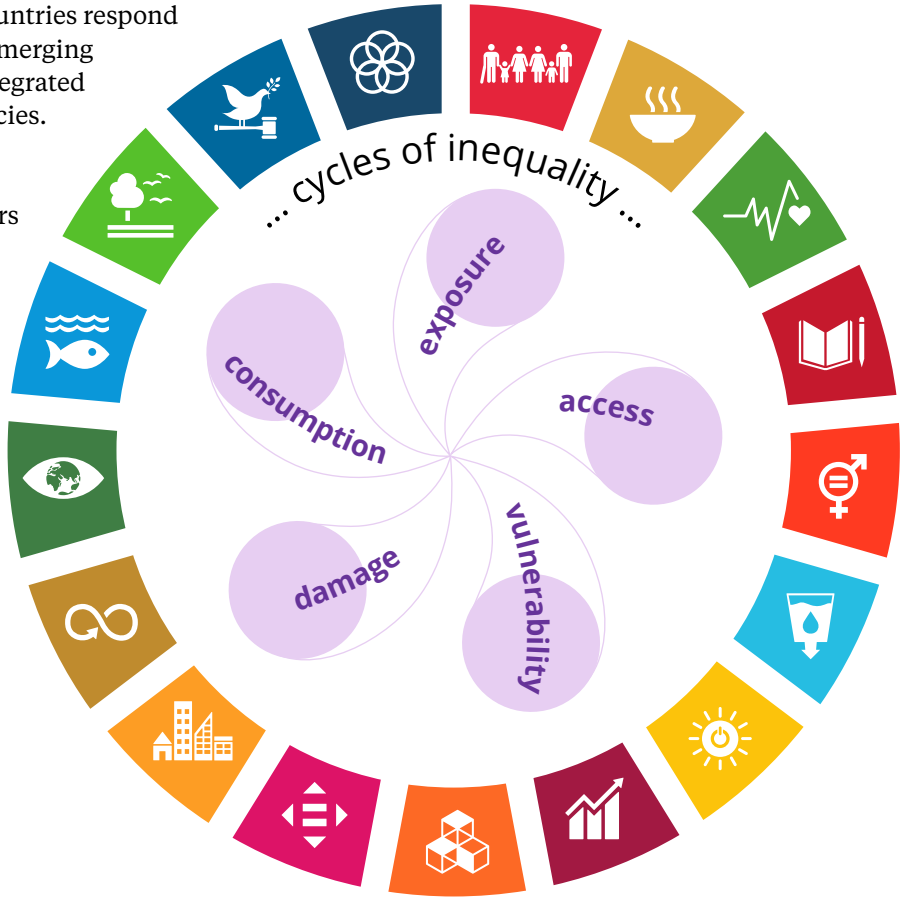
These two principles can help countries respond at local scales to the challenges emerging from earth system risks, in an integrated framework and with aligned policies. And far from placing limits on the future development of disadvantaged countries or sectors of society, this perspective strengthens mechanisms for integrating resource flows in economic and policy processes, to raise people above the poverty line and establish a more level international 'playing field'.

Nature-based solutions implemented through a planetary boundaries lens provide a critical perspective to accelerate actions towards true sustainable development.



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DR. FRANCESCA GIOVANNINI

Convergence of climate change & nuclear weapons

Climate change and nuclear weapons are the two gravest existential risks confronting our planet and our humanity today. Each of them already bears the potential for irreversible consequences. Their interface might further deepen the scale and depth of risks to our livelihoods. Yet this strategic interdependence has often been understudied and largely underappreciated in policy and academic debates.

Firstly, climate change undeniably exacerbates political and social tensions, serving as a potent catalyst for conflicts both within and among nations. Domestically, resource scarcity driven by climate change might induce significant displacement of populations and economic hardships, all of which can spark social unrest, conflicts, and political instability. This in turn could significantly threaten the ability of a country to maintain high standards of safety and the security of its nuclear arsenal. In addition, extreme weather events, the inexorable rise in sea levels, and the looming spectre of resource scarcity all contribute to the potential for disputes, particularly when nuclear-armed states are involved. Numerous studies have emphasised that climate-induced shortages of water and arable land could spark disagreements between nations like Pakistan and India, thereby heightening the peril of a nuclear standoff in the South Asian region.

Secondly, energy scarcity driven by climate change can act as a driver for nuclear energy pursuit by nations looking for alternative energy sources. However, the thin line between civilian nuclear energy programmes and military nuclear programmes can lead to proliferation risks, as countries might divert nuclear materials and technology from peaceful purposes to weapon development, creating a cascade of proliferation. Countries like Iran, Turkey and Egypt have all framed their decision to invest in civilian nuclear energy as imperative to diversify their domestic energy mix and reduce reliance on international sources. Yet their nuclear programmes have fueled concerns over their nuclear proliferation ambitions and their safety and security standards.

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Thirdly, climate change poses direct risks to the existing nuclear infrastructure. Rising sea levels and increased frequency of extreme weather events threaten the safety of nuclear facilities located in coastal areas or regions prone to natural disasters, potentially leading to nuclear accidents with catastrophic environmental and human consequences. The catastrophic accident at the Fukushima Daiichi Plant in Japan clearly demonstrated the vulnerabilities of the nuclear infrastructure even in high technology countries with a long-standing nuclear legacy.

Concurrently and often poorly appreciated, nuclear weapons too have wielded and will continue to have profound effects on the environment and climate. Historically, we know that nuclear weapons testing, often carried out in colonial territories, has had enduring devastating effects on biodiversity. Radiation from nuclear blasts led to mutations and death in flora and fauna, disturbing ecological balances and causing long-lasting damage to ecosystems across countries in the South Pacific, Central Asia, and North Africa. Destruction of ecosystems in turn contributed to further climate alterations. Furthermore, renowned scientists like Carl Sagan, Richard P. Turco, and James Pollack, among others, argued that the detonation of nuclear weapons can cause immediate and long-term climatic changes, also known as “nuclear winter.” Most specifically, the large-scale fires produced from a nuclear detonation release millions of tons of soot into the stratosphere, where it can remain for years, disrupting weather patterns, depleting ozone, and potentially leading to crop failures and mass starvation of unprecedented scale and proportion.

The intricate intertwining of climate change and nuclear weapons paints a formidable and grave image, where each danger has the capability to magnify the adverse repercussions of the other. To be successful in this endeavor, the international community needs to develop greater capacities to tackle the two existential risks combined, while reprioritising resources and increasing public awareness. Until now, the policy community has provided siloed approaches that are unable to tackle the scale and depth of the problem.

The complexity of devising a holistic strategy capable of addressing the interface between the two existential risks derives from the fundamentally different nature of the threats. Climate change is primarily a gradual, cumulative process driven by human activities, such as the burning of fossil fuels and deforestation. In contrast, nuclear weapons pose a threat of sudden, cataclysmic destruction, originating from human conflicts, political tensions, and the pursuit of power and security. In addition, climate change manifests over extended periods, with its impacts becoming progressively more severe, allowing for ongoing study and long-term intervention strategies. Nuclear risks are characterised by their immediate, irreversible consequences and unpredictability, given the volatile nature of international relations and the ever-present risk of accidents or miscalculations.

Yet, raising public awareness of their interdependence would be a priority if we are to promote better allocation of resources to mitigate both threats. In this regard, The International Campaign to Abolish Nuclear Weapons (ICAN) is a quintessential illustration of how the amalgamation of advocacy, diplomacy and education can address the intertwining existential risks of nuclear weaponry and climate change.

The campaign has advocated for a paradigm shift, placing human and environmental security at the forefront of disarmament dialogues and policies. It underscores the importance of international solidarity, cooperation, and legal frameworks in mitigating these dual risks. Through its holistic approach, it has promoted the mitigation of these interconnected threats, emphasising the urgency of collective, integrated action for the safeguarding of our planet and humanity.

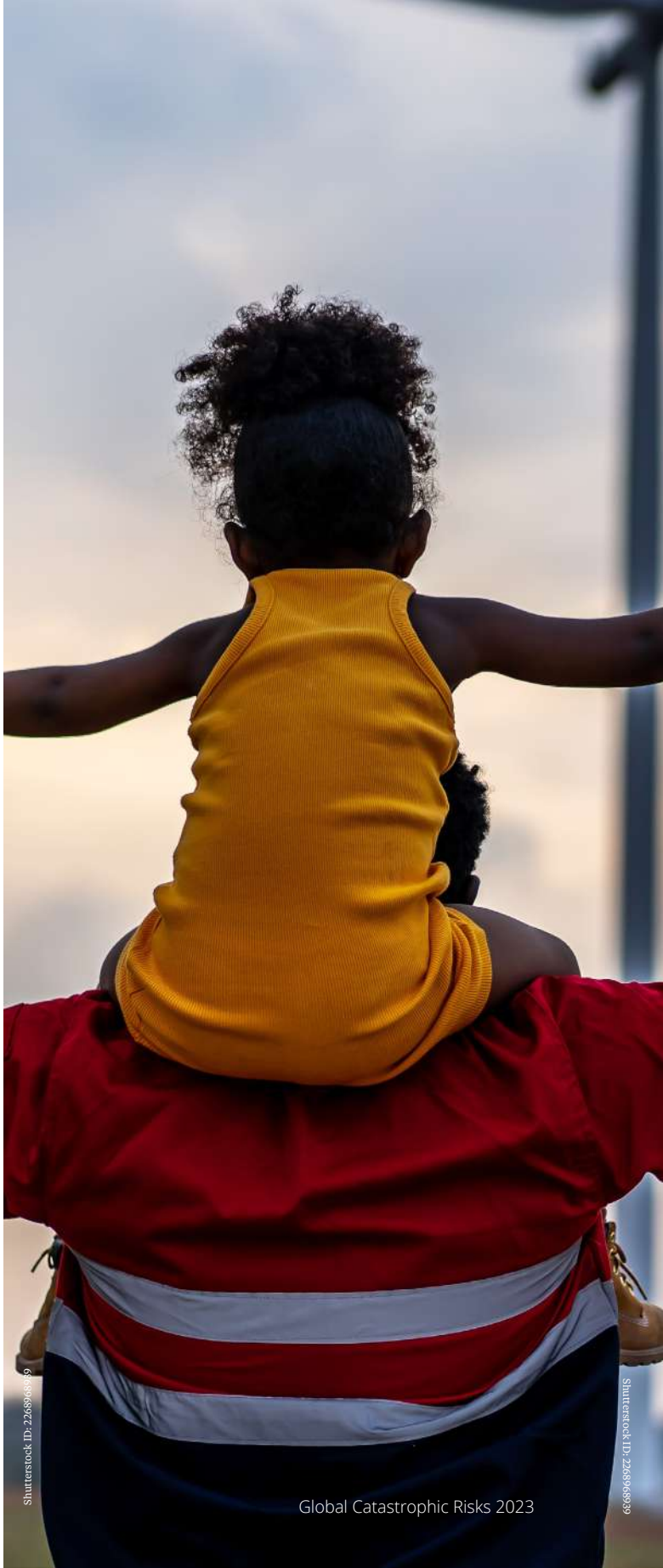
But more still can be done. For instance, research and development in green technologies and renewable energy sources are imperative to combat climate change and mitigate the repercussions on geopolitical dynamics. The advancement in these technologies can potentially alleviate the strains and tensions arising from resource scarcity and dependencies, reducing the potential triggers for nuclear confrontations. Moreover, the enhancement of international legal frameworks is essential. It can lead to the formulation of more stringent and effective agreements, fostering nuclear disarmament and addressing the risks posed by climate change. Developing universally accepted norms can facilitate international cooperation, reinforcing collective security and ensuring mutual benefit. These norms can address the contentious lines between civilian and military nuclear programmes, thereby reducing the risks of proliferation and maintaining a balanced pursuit of nuclear energy for peaceful purposes.

ICAN 2017 NOBEL PEACE PRIZE

Enhanced education and public awareness are pivotal, fostering a culture of responsibility and proactive engagement in environmental conservation and peacebuilding. Mobilising communities around the globe to understand the interlinked nature of these threats will empower societies to demand and contribute to transformative actions. Grassroots movements and community-based initiatives can serve as catalysts for change, influencing policies and promoting sustainable practices and peace.

Furthermore, enhancing global resilience to both climate change and nuclear risks requires steadfast international collaboration, bridging the divide between developed and developing nations, and fostering mutual trust and shared values. It requires building capacities and fortifying institutions in vulnerable regions, ensuring equitable access to resources and opportunities, and mitigating the risks of conflicts and tensions escalating to nuclear proportions.

The interdependence between climate change and nuclear weapons necessitates an overarching, integrative approach, combining insights, expertise, and resources from across the spectrum, to untangle the complex web and ensure the sustainable coexistence of all living beings on our planet. Balancing immediate concerns with long-term strategies is crucial for constructing a future where both the environment and humanity can thrive in harmony.



Global governance reform

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JOYEETA GUPTA

Towards global constitutionalism

With globalization, we are increasingly facing global catastrophic risks. How do we avoid these huge risks or make them manageable? How do we ensure that they do not exacerbate inequalities and injustices? Within the Earth Commission we have identified eight safe and just Earth System Boundaries. Earth System Boundaries differ from Planetary Boundaries to the extent that they also cover local and regional boundaries. Three safe Earth System boundaries had to be made more stringent as they were not just enough – namely climate change, aerosols, and nitrogen. For example, although 1.5C is the safe boundary, we argue that already at 1°C at least tens of millions of people are exposed to a range of life threatening consequences, and hence 1°C is the just boundary. Since we have already crossed 1°C, we call on the global community to not miss the 1.5°C mark. This means that we must drastically reduce our greenhouse gas emissions. Just boundaries minimise significant risks to humans.

At the same time, the social Sustainable Development Goals call on us to meet the minimum needs of humans. We conducted a thought experiment to calculate what meeting these minimum needs (to water, food, energy and infrastructure) in 2019 would mean. Our calculations show that this would lead to crossing boundaries, unless we transform our global society.

Moreover, we showed that already in 2019 we crossed 7 out of 8 boundaries and 86% of the global population lives in areas where at least two boundaries have been crossed. These results go beyond the existing scholarly discussion on planetary boundaries because they also focus on issues of justice. Beyond these social and ecological risks, there are risks associated with technologies (e.g. artificial intelligence) and natural events (e.g. an asteroid hitting earth).

We use the safe and just boundary as the ceiling of the corridor. We derive a floor by providing all humans minimum access. The corridor that is created is continuously shrinking. Competition for accessing the shrinking resources and carbon sinks is intensifying and worldwide social movements that demand justice are growing.[1] **As the corridor shrinks, the demands for justice will only increase**.

Many of these risks exacerbate inequalities and multiply injustices. People (and countries) in geographically vulnerable regions run the risk of death or displacement. Poor people have lower adaptive capacity to cope with or avoid major catastrophic risks. People, marginalized for whatever reason, are at the frontline of facing disasters. **Catastrophic risks multiply injustices**.

At the same time, if we cannot adopt just and inclusive policies, we may not be able to address the root causes of global catastrophic risks. Displaced people will seek to migrate elsewhere. Conflict over limited resources may lead to civil war. Marginalized and poor people will cut down the last tree or use the remaining fossil fuel in order to survive. **Injustices may unleash catastrophic risks**.

To break the spiral of injustices aggravating catastrophic risks, we need to address injustices. One way to do so is to call for Global Constitutionalism. Such Constitutionalism could build on the UN Charter of 1945, the Rio Principles on Environment and Development of 1992, and the Sustainable Development Goals of 2015. In addition it could build on the concept of Earth System Justice (ESJ).

The concept of ESJ does not only take into account justice perspectives that are dominant in the global North but also those justice perspectives that other communities and marginalized groups subscribe to. Balancing between these justice elements is not easy and more scholarly work on this needs to be undertaken. ESJ promotes procedural justice – access to information, decision-making, civic space and courts, recognizing that poorer and marginalized communities may need greater help to enable them to make use of procedural justice. However, we note that access to information is clouded by social media and alternative facts; worldwide civic space is shrinking, and politicians are increasingly interfering with the independence of the judiciary.

Nevertheless, national courts are increasingly calling for changed behaviour of states and people, among others, illustrated by the 2.431 climate litigation cases that are reported since 2011 and exponentially growing.[2] In terms of substance, justice is about access to minimum resources and the allocation of the remaining resources, risks and responsibilities.

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The discussion on minimum resources is ongoing within human rights resolutions and the adoption of the Sustainable Development Goals (SDGs). However, currently, none of the social SDGs have been met at a regional or global level[3] and ESJ requires that we prioritise access. Allocation that is undertaken primarily through markets and trade can be inequitable. The current allocation of resources and wealth is quite inequitable.

Operationalizing Earth System Justice calls for adopting (a) Earth system boundaries at local to global level; (b) adopting rules to guarantee minimum access to basic resources. It also calls for (c) addressing the root causes of such risks (e.g. debates on 'going beyond GDP'[4] and introducing excess profit and wealth taxes[5]); (d) promoting liability of companies and countries for risks caused to others (e.g. through the UNFCCC's concept of 'loss and damage'); and (e) revisiting existing allocation mechanisms (e.g. existing climate finance mechanisms already caused the most vulnerable countries to face a 'low funding trap'[6]).

Such ideas could form the basis of a new global constitution. This is especially necessary as global governance is fragmented. For example, different environmental issues are dealt with by different treaties. Although coherence and comprehensiveness is desirable, this is not possible at such a large scale. Moreover, as knowledge multiplies and AI massively increases the scope of development, the governance system will always be reactive and not proactive. And that is why a global constitution is needed.

The proposed global Constitution would include shared goals for all countries and peoples, common principles that guide actions including the precautionary principles, clearly articulate in one place the rights of all people and possible nature, and responsibilities of states and people. This should provide a framework against which every new development can be tested. One that warns technology developers that they should internalize the possible damage that their technology could cause. One that warns business people to integrate the price of causing damage to others even if in another country. A precedent is being set by California suing the major oil and gas multinationals for misleading the state on the negative side effects of greenhouse gases. Such a Constitution needs to be drafted based on ideas in existing constitutions in different parts of the world, and on newer ideas of how to live within Earth System Boundaries. The constitution needs to be supported by people in different continents in order to become legitimate. If a country could be persuaded to suggest that such a constitution is needed within the UN General Assembly, the highest UN body, and if other countries agree, then possibly negotiations could begin on such a constitution. Such a constitution could lead to amendments to existing trade and investment agreements. It could inspire nations to update their national constitutions and it could be implemented within existing or new international courts, but also within national courts. In 1945, the UN Charter was adopted. It is high time for us to propose a second UN Constitution.

1. Since 2006 civil protests and demonstrations across the world have more than tripled (Ortiz, I. et al. (2022). World Protests. A Study of Key Protest. Issues in the 21st Century. Cham: Palgrave Macmillan. 185 P. Eyal, Nadav. Revolt. 2021. The Worldwide Uprising Against Globalization. London: Picador. 515 P.)
2. Reported in the climate change litigation database of the Sabin Center for Climate Change Law
3. Sachs, J.D., Lafortune, G., Fuller, G., Drumm, E. (2023). Implementing the SDG Stimulus. Sustainable Development Report 2023. Paris: SDSN, Dublin: Dublin University Press, 2023. 10.25546/102924
4. For example as advocated by Joseph E. Stiglitz, Jean-Paul Fitoussi and Martine Durand in their 2018 OECD report 'Beyond GDP: Measuring what counts for economic and social performance'
5. In 2021 the tax justice network estimated that countries are losing a total of $483 billion in tax a year to global tax abuse committed by multinational corporations and wealthy individuals
6. Mofakkarul Islam, M.D. (2022). Distributive justice in global climate finance – Recipients' *climate vulnerability and the allocation of climate funds. Global Environmental Change*, Vol. 73

OWEN GAFFNEY

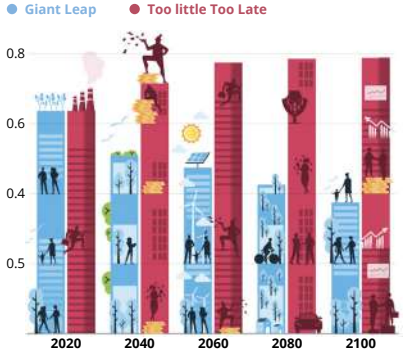
A liveable future: our window of opportunity

The window of opportunity for a livable future on Earth is closing rapidly, according to the consensus view of the Intergovernmental Panel on Climate Change (IPCC) in 2022.[1] The unrelenting heat of the summer of 2023 gave a glimpse of what is to come. As the United Nations Secretary General António Guterres rightly said, "humanity has opened the gates of hell."

Alarmingly, 2023 is likely to approach 1.5°C above pre-industrial levels. With El Nino growing stronger in the Pacific, it is likely 2024 will be even hotter. As discussed elsewhere in this report (Rockström), irreversible climate tipping points are now dangerously close.[2] We can say categorically that we are destabilizing the only ecological system in the solar system that *we know for a fact can support life and an advanced civilization*. The stakes could not be higher. We are gambling with the future of a stable planet.

A world with less **inequality** with a **Giant Leap**

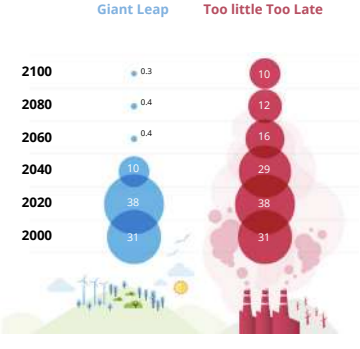
Earth4All inequality index



Footnote: The Earth4All inequality index measures the relative size of workers' incomes of capital owners in the Earth4All model.

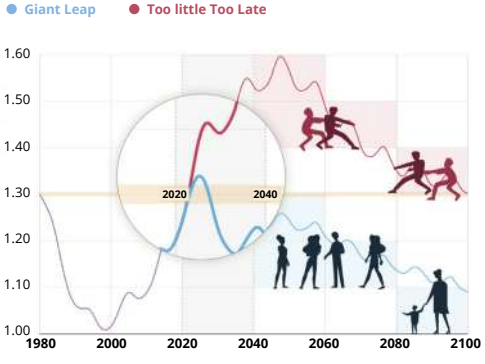
Greatly reduced **emissions** with a **Giant Leap**

CO2 emissions from energy and industry (GtCO2/y)



Reduced **social tension** by 2030 if we take a **Giant Leap**

Earth4All social tension index



Footnote: The Earth4All social tension index measures the inverse of people's percieved rate of progress, defined as the rate of change in the Earth4All Wellbeing Index.

Source: Earth for All: A Survival Guide for Humanity (2022)
www.earth4all.life

As the planetary crisis unfolds another crisis is unfolding in parallel. The world is reversing the trend towards greater democracy. We are seeing a rise in populism and authoritarian leaders. Why? Despite the fact that the world has never been so wealthy, too many people feel economically insecure. Deep economic insecurity coupled with weapons-grade disinformation is fueling polarization and fragmentation in societies, just at the moment we need unity and strong democratic governments empowered to take long-term decisions for the benefit of the majority of people. If we want to solve the climate challenge, we need to solve the democratic crisis.

In 2022 my colleagues and I published *Earth For All: a survival guide for humanity*. Building on the work of The Limits To Growth, we explored two scenarios this century.[3] In our first scenario we assume today's economic policies continue into the future. Current policies to stabilize climate will be too little, too late. The climate will likely cross irreversible tipping points condemning future generations to unimaginable hardship and setting the stage for conflict. On top of that, the economic system, geared to increase wealth at the expense of workers' incomes, will destroy social cohesion potentially making it more difficult for democratic governments to take long term decisions like reducing greenhouse gas emissions.

In this Too Little, Too Late scenario not only will we face greater climate risks we will have less institutional capacity to solve them. Already in Greece and the United States, for example, people are losing faith in the ability of the government to deal with climate chaos. With this vicious cycle established, the longer we delay climate action, the more dysfunction we can expect in societies, and the more difficult it will be to make even deeper emissions cuts. If we value democracy, the foundation of human progress, delay is a recipe for disaster.

Our second scenario, though, the Giant Leap, shows that it is feasible to change direction. We arrive at a remarkable conclusion: it is possible to strengthen democracies while respecting planetary boundaries by guaranteeing economic security for all, delivering clean energy security and providing food security. The key is to reduce social tensions to build democratic support for strong governments empowered to take long-term decisions for the benefit of the majority, not merely serving the interests of the high-emitting elites. This will require institutional reform on a grand scale.

If we value democracy and a stable planet, we need five extraordinary transformations to build strong societies to face the risks this century: energy and food are the two obvious ones. But also poverty, inequality and gender empowerment.

A starting point to build greater social cohesion is greater wealth redistribution so that all in society gain from the transformation, not fall further behind. This can be done through taxation reform and curtailing luxury carbon consumption of the wealthiest 10% in society.

We also propose a universal basic dividend – a fee and dividend approach to managing the global commons based on the Alaska Permanent Fund. This fund was constitutionally established in 1976 by a Republican governor. It is funded by oil and mining revenues and distributes a dividend of about $1600 every year to every citizen. It is a sizable annual sum for a family of four. All extraction and pollution of the global commons – from mining to greenhouse gas emissions and deforestation – should operate under a similar scheme. Such a universal basic dividend, and expanding to other common goods, will help provide essential economic security during a period of disruptive transformation in the coming decades.

How can we create the political space for ideas like the universal basic dividend and tax reform? The immediate priority is to build stronger cross-party coalitions around long-term priorities. We need more active governments prepared to invest in long-term industrial planning related to energy, transport, food systems, buildings and industry. One promising mechanism for institutional reform is to establish, at a national level, citizens' assemblies on economic systems change. Citizens' assemblies have been shown to help overcome entrenched political polarization by providing a legitimate way to deliberate at a national level outside of the constraints of political parties.

At the same time, to rapidly scale wind and solar in low-income and emerging economies we also need to reform the international architecture. Three ideas could significantly move the dial. In 2021, *a global citizens' assembly* on climate change was established for the first time. Building on this work, the world should convene a general global citizens' assembly that operates independently from the United Nations but in a way that is mutually reinforcing. The assembly could deliberate on issues relating to the global commons, for example planetary boundaries, economic systems change and improved international governance.

A second priority at the international level is reform of the financial architecture. As Mia Mottley, the PM of Barbados has said, the IMF and World Bank were devised by a small group of countries 70 years ago. They do not represent today's reality. Mottley has led a reform process that holds the promise of moving from billions to trillions of dollars of investment in developing economies. Immediate priorities are to find solutions to reduce the risk of investment in developing countries. This can be done through restructuring and canceling debt and reforming financial instruments like the Special Drawing Rights to allow greater access by low-income countries.

Finally, we need to establish an international tax system to avoid the "race to the bottom". Multinational corporations and rich families must pay a fair tax for a stable planet and stable global economy. Today they are free riders.

The time for incremental action is over. We need exponential change. We need social tipping points to drive action. There are promising signs that we are reaching a social tipping point, for example movements like the Fridays For Future movement, Extinction Rebellion and Sunrise are gaining traction. This must gather momentum and, crucially, translate into a powerful political narrative. What we show with Earth For All is that the old political narratives are outdated. It is feasible to build resilience in societies, to reduce economic insecurity and stabilize the planet. This is not a cost to bear. This is an investment in our common future on Earth.

1. Intergovernmental Panel On Climate Change Sixth Assessment Report (2022)
2. Armstrong-McKay et al (2022) **Exceeding 1.5°C global warming could trigger multiple climate tipping points** Science https://www.science.org/doi/10.1126/science.abn7950
3. Sandrine Dixson-Declève, Owen Gaffney, Jayati Ghosh, Jørgen Randers, Johan Rockström and Per Espen Stoknes Earth For All: A Survival Guide for Humanity (2022), New Society Publishers

MAIARA FOLLY

Incentives & partnerships: multilateral governance

In recent years, the world has witnessed significant environmental setbacks. The globe's large emitters continue to fall short of meeting their national greenhouse gas emissions reduction targets as agreed upon in the Paris Agreement, while high deforestation rates continue to threaten biodiversity in several regions. Part of this environmental destruction is driven by international trade, and specifically by an increasing demand for commodities sourced from endangered forests and biomes.

Despite the significant role that the demand for agricultural goods and minerals from environmentally sensitive areas plays in fueling biodiversity loss and environmental crimes worldwide, existing global governance institutions have failed to establish a comprehensive global framework to regulate supply chains. In the absence of multilaterally negotiated socio-environmental rules and requirements, an increasing number of countries have passed legislation with extraterritorial applications to prevent the import of products associated with deforestation and human rights violations.

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Countries as mentioned above include the United Kingdom and the European Union. For instance, the UK Environment Act 2021 prohibits the importation of raw materials, the list of which is yet to be specified, if they are illegally sourced, in accordance with the laws of the producing country. It is worth noting that an estimated one-third of all global deforestation is considered legal according to the laws of the countries where this kind of activity occurs. On the other hand, the EU Deforestation Regulation (EUDR),[1] which was approved in April 2023 and became effective on June 2023, require companies to conduct strict due diligence to ensure that EU imports of commodities – more specifically, palm oil, cattle, soy, coffee, cacao, timber, and products derived from them, such as beef, hides, leather, chocolate and charcoal – are free from any form of deforestation, regardless of whether this is considered legal according to the laws of producing countries.[2]

It is important to acknowledge that the UK and the EU, along with other countries that have recently adopted their own due diligence regulations, such as France[3] and Germany,[4] establish different criteria for cleaning up supply chains. For instance, they adopt distinct timeframes, cover different commodities, at-risk biomes and types of environmental and human rights violations, in addition to establishing varying levels of due diligence and traceability requirements, as well as distinct punishments in case of non-compliance. This means that even for those who are interested in complying, adapting to a broad set of requirements and standards – without, however, receiving adequate incentives or financial assistance – may prove to be costly and challenging, especially for smallholder farmers and small-scale producers.

Furthermore, these new legislations were met with significant political resistance from some of the world's leading exporters of commodities. For instance, Brazil's ambassador to the EU has classified the EUDR as unilateral, punitive, and discriminatory.[5] In addition, in September 2013, a group of 17 developing nations from Latin America, Africa and Asia[6] sent a letter to the presidents of the European Commission, the European Council and the European Parliament expressing concerns related to EUDR:

> ***This regulation disregards local circumstances and capabilities, national legislations, certification mechanisms, their efforts to fight deforestation, and multilateral commitments of producer countries, including the principle of common but differentiated responsibilities. It also establishes an inherently discriminatory and punitive unilateral benchmarking system that is potentially inconsistent with WTO [World Trade Organisation] obligations.***[7]

The letter also emphasised that small producers are especially vulnerable to the EUDR due to challenges related to limited access to credit schemes, new technologies, training and technical assistance. It states: "small producers may end up excluded from international value chains, not because they have deforested their land, but because of their inability to comply with the strict requirements imposed by the EUDR."

To summarise; the resistance from producing nations demonstrates that in order for importing countries' legislation to fulfil their goal of achieving deforestation-free and low-emission trade flows, enhanced dialogue and international cooperation between the two sides of the supply chains will be essential.

To that end, to overcome political opposition arising from sovereign concerns, while also promoting compliance with their due diligence regulations, major importers of commodities should firstly prioritise efforts to assist producing countries in implementing their own national traceability systems and domestic policies aimed at preventing and combating deforestation and other environmental crimes.[8] In addition, to tackle challenges related to resource scarcity, especially for small-scale actors, entities like the EU and the UK should offer positive incentives and financial support aimed at assisting smaller producers, such as cooperatives, rural workers' associations, local extractive communities, and family farmers in complying with these external legislations. Establishing new targeted partnerships that recognise the varying levels of capabilities between large corporations on the one hand and small producers on the other, by providing specific support to the latter, could help prevent these less-resourced actors from unintentionally facing further exclusion from international markets.

Secondly, achieving supply chains that are free from deforestation and other environmental crimes is crucial to global efforts to tackle climate change and halt and reverse biodiversity loss. Therefore, progress in this area would represent an important step in helping fulfil the goals of the United Nations Framework Convention on Climate Change (UNFCCC) and the Convention on Biological Diversity (CBD), as well as their Paris Agreement and the Kunming-Montreal Global Biodiversity Framework, respectively.

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In this regard, both commodity-producing and importing countries must make use of existing multilateral frameworks to incorporate socio-environmental criteria in any attempt to regulate supply chains. This includes the ongoing process, led by the UN Human Rights Council,[9] to negotiate an international instrument to regulate the human rights impacts of transnational corporations and other business enterprises. Ensuring that environmental provisions are addressed during the negotiations of such a treaty would be consistent with the UN General Assembly Resolution A/76/L.75, approved by a landslide of 161 votes in 2022, which recognised "the right to a clean, healthy and sustainable environment as a human right."[10]

Finally, in addition to mainstreaming environmental concerns in ongoing discussions in other relevant forums, the WTO, as the cornerstone of the multilateral rules-based global trading system, should take the lead on efforts aimed at both establishing rigorous socio-environmental criteria and requirements to govern trade flows, as well as setting provisions to avoid the misuse of such measures for protectionist ends. This would help build more sustainable global supply chains, while also taking into account different national circumstances and capabilities, and ensuring consistency with the WTO's own rules of open, fair and undistorted trade between nations.

To conclude, to be effective in terms of encouraging broad acceptance and compliance, a multilateral process to agree on rules to foster fair and sustainable trade must be inclusive and multistakeholder-oriented, involving leadership s from both developing and developed countries. In other words, it should not be restricted to governments, but also allow for the meaningful participation of civil society, private sector actors, and those who are both at the forefront of environmental protection and most affected by biodiversity loss linked to trade, notably indigenous peoples, traditional and local communities.

1. Read more on: Parliament adopts new law to fight global deforestation. *European Parliament News*, 19 Apr 2023. Available on: https://www.europarl.europa.eu/news/en/press-room/20230414IPR80129/parliament-adopts-new-law-to-fight-global-deforestation#:~:text=The%20deal%20with%20EU%20countries,5. Accessed on: 13 Apr 2023.
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3. French law on the duty of vigilance of both parent companies and subcontracted companies. Available on: https://plan-vigilance.org/wp-content/uploads/2019/06/2018-FAQ-espagnol.pdf. Accessed on: 27 Apr 2023.
4. Das Lieferkettengesetz. Available on: https://www.bmz.de/de/themen/lieferkettengesetz. Accessed on: 11 May 2023.
5. How partnerships complement the EU Deforestation Regulation. Available at: https://www.fern.org/publications-insight/how-partnerships-complement-the-eu-deforestation-regulation-2628-1/?utm_source=Fern+Global+List&utm_campaign=47b463e1d0-EMAIL_CAMPAIGN_4_10_2019_9_12_COPY_01&utm_medium=email&utm_term=0_a3733965c2-47b463e1d0-380382257. Accessed on: 10 Jul 2023
6. The letter was sent by Argentina, Brazil, Bolivia, Colombia, Dominican Republic, Ecuador, Ghana, Guatemala, Honduras, Indonesia, Ivory Coast, Malaysia, Mexico, Nigeria, Paraguay, Peru, and Thailand.
7. Letter from developing countries to European authorities regarding the entry into force of the European Union's so-called "anti-deforestation law". Available at: https://www.gov.br/mre/pt-br/canais_atendimento/imprensa/notas-a-imprensa/carta-de-paises-em-desenvolvimento-a-autoridades-europeias-sobre-a-entrada-em-vigor-da-chamada-201clei-antidesmatamento201d-da-uniao-europeia
8. Folly, Maiara and Closs Marília (2023). "Lula's New Government: Prospects for Brazilian Foreign Policy and Relations with the European Union". Plataforma CIPÓ. Available at: https://plataformacipo.org/en/publications/policy-briefbrazilian-foreign-policy-and-the-relations-with-the-eu/
9. In 2014, the Human Rights Council adopted resolution 26/9 by which it decided "to establish an open-ended intergovernmental working group on transnational corporations and other business enterprises with respect to human rights, whose mandate shall be to elaborate an international legally binding instrument to regulate, in international human rights law, the activities of transnational corporations and other business enterprises." The open-ended intergovernmental working group (OEIGWG) has had eight sessions so far and its ninth session took place 23-27 October 2023. Further information about this process can be found at: https://www.ohchr.org/en/hr-bodies/hrc/wg-trans-corp/igwg-on-tnc
10. United Nations (2022). With 161 Votes in Favour, 8 Abstentions, General Assembly Adopts Landmark Resolution Recognizing Clean, Healthy, Sustainable Environment as Human Right. Available at: https://press.un.org/en/2022/ga12437.doc.htm#:~:text=With%20161%20votes%20in%20favour%20and%208%20abstentions%2C%20the%20General,ensure%20that%20principle%20is%20upheld.

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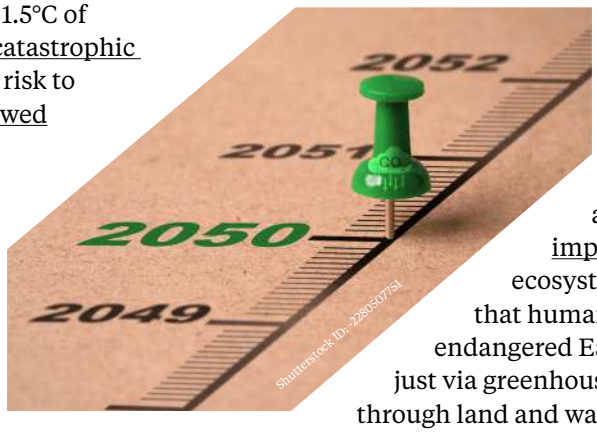
ERIN SIKORSKY

Climate, conflict & ecological: governance of overlapping risks

Averting catastrophic climate change is critical for planetary security, entailing increased clean energy technology deployment, critical minerals mining, and conservation. If poorly executed, however, these actions can exacerbate other global risks -namely ecological collapse and conflict -requiring stronger and more integrated institutions and governance.

WHAT IS AT STAKE

With the world on pace to far exceed 1.5°C of warming, failure to quickly address catastrophic climate change entails unacceptable risk to human and global security, as previewed by the summer's extremes. Avoiding such risks means rapidly deploying technologies like solar and wind energy, long-distance transmission lines, and electric vehicles. It means mining more minerals and metals like lithium, cobalt, nickel, and copper to produce them. And it means addressing roughly 20 per cent of greenhouse gas emissions from land use by transforming agricultural systems and restoring carbon sinks like rainforests in the Amazon and Congo River Basins.



WHAT IS KNOWN

Climate risks are part of a broader triad of ecological collapse and conflict risks. If poorly executed, some energy transition efforts could exacerbate parts of the ecological crisis, of which climate change is one part. Mining is energy and water intensive and drives deforestation and pollution, but the International Energy Agency projects demand for key minerals will quadruple by 2040 in a scenario achieving the Paris Agreement. Meanwhile, deployment of some renewables at scale could impact biodiverse ecosystems. Scientists warn that human pressures have endangered Earth's systems, not just via greenhouse gases, but also through land and water use, chemical pollution, and biodiversity loss. The UN's Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) reports that ecosystems critical for human wellbeing are deteriorating rapidly worldwide.

Meanwhile, uncoordinated climate change or ecological preservation policies could also prompt communal, national, and international tensions. Scientists estimate that stabilising ecosystems and climate change will require protecting 50 per cent of the Earth's surface by 2030. This portends intensified land-use conflicts over energy infrastructure, conservation, and the rights of Indigenous communities (who steward many biodiverse ecosystems and are understandably sceptical of potential land grabs). Expanding mining risks deepening protests and state repression of environmental activism, bringing conflict risks even among "winners" of the energy transition. In Peru last year, disputes over copper mining revenue contributed to a violent constitutional crisis, while India and Iran are pursuing lithium deposits that risk tensions with local communities and downstream nations. Finally, as the U.S. intelligence community has warned, the distribution of obligations for climate action and finance is fueling geopolitical tension, encompassing U.S.-China sniping over emissions, vulnerable countries' dissatisfaction over inadequate climate aid, objections to E.U. carbon tariffs, or tensions over nature-friendly World Bank and IMF reforms.

KEY FACTORS AFFECTING RISK LEVELS

Several factors could intensify or alleviate these interlocking risks, including the degree of policy coordination across sectors, the pace of technological innovation, and uncertainties in complex human and natural systems. More holistic policy coordination across siloed national and global institutions can drive action toward win-win policies, like restoration of environments that preserve ecosystems, store carbon, and improve social cohesion. The advent or absence of new technologies like more efficient and climate resilient crops, or less mineral-intensive batteries, will shape possible tradeoffs between ecosystem conservation and climate policy. And finally, unpredictability in compounding and cascading impacts between Earth systems and the human underpinnings of global security introduces additional uncertainty.

GLOBAL GOVERNANCE AND KEY GAPS

Governance of the nexus of these risks is fragmented across and within the patchwork of institutions focused on climate change, ecosystem preservation, and conflict.

On climate, the UN Framework Convention on Climate Change (UNFCCC) has made progress bending emissions and future warming down from the worst case. But the Paris Agreement's system of voluntary pledges, transparency, and international peer pressure is increasingly strained amid inadequate financing and Global North-South disputes. Ecological preservation is even more nascent. Last year, parties to the UN Convention on Biological Diversity (CBD) agreed to ambitious goals, including conserving 30 per cent of the Earth's surface by 2030. However, the preceding targets were unmet, and countries have largely not implemented policies toward these goals or apportioned the conservation of critical ecosystems which are unevenly distributed globally. On the key issue of responsible mining, industry consortiums and third-party verification services are voluntary, while governmental coalitions like the U.S. State Department's Energy Resource Governance Initiative and Minerals Security Partnership are ad hoc and disconnected from global targets. Meanwhile on international security, China's rise and Russia's war in Ukraine are amplifying a fragmentation of global geopolitics and a proliferation of competing regional alliances.

Governance across siloes is even more challenging. Even climate and biodiversity experts are only beginning to systematically coordinate, with UN science panels on each topic issuing their first joint report in 2021, and no unified process for policy making. Meanwhile, while the U.S and NATO have increased focus on the security implications of climate change, progress is hostage to U.S. political swings; resourcing is falling short; ecological considerations are poorly integrated; and consensus in the UN Security Council is lacking.

Climate change risks planetary security, and these concerns should not preempt urgent climate action. Rather, global governance must strengthen and unify to successfully manage this nexus of climate, ecological, and conflict risks.

1. First, scientific assessments of climate change and biodiversity should be integrated across the IPCC and the IPBES, to address key tensions and co-benefits across risk areas. Likewise, the UNFCCC and CBD processes should better unify their global temperature and conservation targets.

2. Second, security and geopolitical institutions like the UN Security Council, NATO, and the G20 should more proactively address the domestic and international conflict risks around critical minerals. This would include comprehensive risk assessments and proactive diplomatic engagement in potential hotspots.

3. Finally, global energy and climate policymakers need a more robust global governance regime for mining that includes more uniform and enforceable standards to minimise local harm and potential security repercussions by upholding community consent, benefits sharing, and human rights protection. Even still, parallel policies to minimise critical minerals demand growth, such as increased battery recycling, more public transport, and investment in less minerals-intensive battery technology, should be prioritised to minimise the unavoidable costs of mining for ecological and conflict risk.

RICHARD GOWAN

New Agenda for Peace: a spotlight on catastrophic risks

In July 2023, United Nations Secretary-General António Guterres released *A New Agenda for Peace*, with a focus on managing catastrophic risks through multilateral diplomacy. The *New Agenda* is one of almost a dozen policy briefs, covering issues from education to outer space, that Guterres has released in advance of a "Summit of the Future" scheduled for September 2024. The UN chief wants leaders to use this event to agree on reforms to the international system to address both geopolitical shifts and technologies such as Artificial Intelligence (AI).


Image: Flickr

While the *New Agenda* is just one of the preparatory documents for the summit, it covers a wide range of security issues. Some of these are traditional UN fare, such as blue helmet peacekeeping. But the paper pays particular attention to catastrophic risks, including those of nuclear weapons, climate change, and the dangers associated with technological innovation.

Guterres has made strong statements about all these risks in the past. He has acknowledged that the UN as an institution cannot resolve these challenges alone. Instead, the *New Agenda* calls for the organisation's members to invest in diplomatic processes to deal with each category of risk, although it does so case-by-case, with differing levels of detail and conviction.

The paper puts the need to "eliminate nuclear weapons" front and centre as its first policy recommendation. But it has little new to say on how states can achieve this goal, which - as it recognises - is rooted in the 1968 Non-Proliferation Treaty (NPT). While declaring that "risk reduction does not suffice when the survival of humanity is at stake," the paper acknowledges the short-term need for more limited steps, like major power dialogues on strategic stability.

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By contrast, the *New Agenda* goes into some detail on the "interlinkages between climate, peace and security." This is a bold move, given Russia's decision to veto a Security Council resolution on climate and security in December 2021. Guterres nonetheless urges the Council to approach the problem "systematically", and also proposes the creation of an expert group linked to the Intergovernmental Panel on Climate Change (IPCC) to study climate action, resilience and peacebuilding. He suggests the creation of regional UN hubs to help analyse climate-related security risks and assist governments in responding to them. (Throughout the *New Agenda*, Guterres is at pains to emphasise that the UN exists to serve member states, not direct them). Despite Russia's opposition, many UN members have recently been pushing in a similar direction - both in the Security Council and at UN climate summits - so this is an area where the Secretary-General has a fair chance of gaining traction.

The most intricate part of the paper, however, concerns new technologies. This covers cyberspace, conflict in outer space, and Lethal Autonomous Weapons Systems (LAWS). While expressing concerns over all these, it also nods to the potential of AI and evolving biotechnologies to lead to global catastrophes. The *New Agenda* does not echo those tech leaders who have warned that AI may be an existential threat to humanity, but diplomatically suggests that its "potential for harm is . . . unpredictable." It is more explicit that future biotechnologies could, in the wrong hands, "cause death and disruption on a global scale."

In pointing to these risks, Guterres is not entering entirely new terrain for the UN. Kofi Annan, Secretary-General from 1997-2006, raised similar concerns about biotechnology almost 20 years ago. Although AI is a more novel challenge, UN members including Singapore and the United Kingdom have recently raised it in the General Assembly and Security Council.

Yet, as the *New Agenda* repeatedly emphasises, the international structures for governing most fast-emerging technologies are either weak (as in the case of the Biological Weapons Convention) or simply non-existent. In contrast to the nuclear field - where Guterres can appeal to existing frameworks such as the Non Proliferation Treaty - the New Agenda sets out a menu of new mechanisms for regulating these innovations, including:

- An "independent multilateral accountability mechanism" that could investigate malicious use of cyberspace by states;
- A "legally binding instrument" barring LAWS operating without human control;
- A new institution, potentially modeled on the International Atomic Energy Agency, designed to "mitigate the peace and security risks of artificial intelligence".

Through these proposals, as in its suggestions relating to climate security, the *New Agenda* does a useful job mapping out what a multilateral security system with a greater focus on both catastrophic risks and emerging technologies could look like. This is at least an important thought experiment. Yet implementing many of the paper's proposals will be a hard task.

Summit of the Future
Our Common Agenda

Discussions on the Summit of the Future were difficult throughout 2023. The UN's members have disagreed on the scope of the summit, and especially which peace and security issues it should prioritise. China has questioned whether the time is ripe to discuss the international security architecture at all, given the ongoing war between Russia and Ukraine. Russia itself has repeatedly criticised Guterres for, in its view, wading into nuclear security issues that lie beyond his purview. The U.S. has been more supportive of the *New Agenda* initiative, but Washington will be increasingly distracted by domestic electoral politics prior to the summit.

These factors make it unlikely that the summit will deliver breakthroughs on nuclear issues. It is more probable that UN members will pick up on at least some of the ideas about climate security in the New Agenda, even if Russia will remain an obstacle in the Security Council for the foreseeable future. The biggest question mark hanging over the summit is whether the Secretary-General can persuade states to at least consider his ideas on new technologies.

New York-based diplomats are increasingly open to the idea of making AI a major focus for next year's summit. However, as the International Crisis Group has cautioned, it is improbable that UN members will move quickly to agree new legally binding arrangements or institutions to manage AI, LAWS or biotechnology. Guterres may be able to persuade a critical mass of UN members - including developing countries who worry about being cut out of scientific advances - to support new UN-based processes to discuss how to manage some of these issues. Rather than being a one-off opportunity to define the rules of the road about the risks associated with new technologies, the Summit of the Future may be an opportunity to start a new round of conversations about the multilateral governance of evolving global risks.

BEATRICE FIHN

Bridging the global governance gap for nuclear weapons

THE GOVERNANCE GAP

Nuclear weapons cause widespread devastation and long-lasting environmental consequences, inflicting harm on every country on Earth. Despite such universal impact, discussions and solutions on nuclear weapons have traditionally centred around the nine nuclear-armed states, leaving the majority of the global community largely voiceless.

Russia's illegal invasion of Ukraine and its threats to use nuclear weapons have reminded people about these dangers. Russia's nuclear weapons are not just threatening Ukraine, it threatens all states and people around the world. A threat to use nuclear weapons against one country is, in essence, a threat against all.

The consequences of a nuclear war makes it clear that decisions about the use of nuclear weapons cannot rest solely with a few individual leaders. Every country has a stake in preventing such a catastrophe, therefore collective decision-making is essential. So instead of just waiting for nuclear armed states to one day give up their weapons, we must use existing platforms and mechanisms, notably forums like the United Nations General Assembly (UNGA) and tools like the Treaty on the Prohibition of Nuclear Weapons (TPNW), as a modern and realistic approach to increase global governance over nuclear weapons.

THE GENERAL ASSEMBLY AS THE FORUM

The UNGA has the potential to become a powerful platform for decisions that protect the world's interests, as it forces even the richest and largest states to engage all other states in the discussions, no matter what size. This forum has largely been underutilised due to its non-binding decisions, but is seeing a rise in importance.

When Russia used its veto to stop the UN Security Council adopting a resolution demanding the withdrawal of Russian forces from Ukraine, the text was immediately brought to the UNGA for adoption. The resolution called "Aggression against Ukraine" (ES-11/1) was adopted with overwhelming majority and while not legally binding, it formed the basis of a global action against Russia's invasion by a diverse coalition of states, and reinforced that the invasion was a breach of international norms and principles.

This moral and political pressure influences public opinion, diplomatic efforts, and non-coercive measures against a violator of international law. While it is not the first time we have seen limitations of the Security Council when dealing with crises involving one of its veto-wielding members, this time the UNGA was utilised as a check on the most powerful states.

As the five permanent members of the Security Council possess nuclear weapons, it cannot be an effective body to stop nuclear war and achieve nuclear disarmament. Instead, global governance on nuclear weapons needs to be built on forums involving all states such as the General Assembly.

THE TREATY ON THE PROHIBITION OF NUCLEAR WEAPONS (TNPW) AS THE TOOL

The TPNW is an example of how one can address the global governance gap on nuclear weapons. Created through a UNGA process, this treaty represents a groundbreaking shift in how the world discusses and acts on nuclear disarmament. By mobilizing countries impacted by both nuclear weapons use and threat of use, as well as leveraging the democratic structures of the United Nations, the TPNW embraces modern principles of governance. It's a comprehensive ban on nuclear weapons, including their use, threats of use, possession, testing, stationing, and other activities. Although nuclear-armed states have not yet signed the treaty, it is a creative and proactive approach to shift global views on nuclear weapons and enable global governance over these weapons in three ways.

1. The TPNW process encourages a global oversight over nuclear weapons by engaging more stakeholders and a diverse set of actors beyond the nuclear armed and nuclear allied governments. During the negotiations of the treaty, countries from the global south, communities impacted by nuclear weapons testing or use, youth, humanitarian relief organisations and a broad coalition of academics, scientists, and other civil society actors took leadership roles and engaged deeply in the negotiations.

2. This diversity has led to a creative implementation process and builds a global responsibility for the treaty's success, leading to impact on non-state parties too. Local governments such as cities and regional authorities have declared support for it, financial institutions are implementing it by divesting from nuclear weapons producing companies, the treaty has appointed a scientific and technical advisory board of academics, scientists and civil society actors to help support the implementation, and humanitarian organisations are starting to implement the obligations to provide victim assistance and environmental remediation.

3. The TPNW creates a normative effect by delegitimising and stigmatising nuclear weapons. Its influence has been evident in countering nuclear threats, such as Russia's recent threats to use nuclear weapons. The TPNW states parties adopted the Vienna Declaration in June 2022 – the strongest multilateral condemnation of threats to use nuclear weapons to date. This marked the start of a series of condemnation of such threats to use nuclear weapons, where global leaders from non-signatories, including Germany, China, India and NATO's Secretary General, issued statements condemning, culminating in a statement by the G20 in Bali in November 2022, stating that threats to use nuclear weapons was "inadmissible". While of course such a statement does not fully eliminate the risk of use, US state department officials and German Chancellor Scholtz publicly said that such statements had an impact on Russia and led to its leadership toning down such threats.

Despite this progress, the risk of nuclear weapons use still persists. But by strengthening the use of the UN General Assembly and the TPNW as tools, we can develop creative measures to enforce global norms and governance over nuclear weapons, even in the nuclear armed states.

CONCLUSION

The threat of nuclear weapons is a pressing issue that affects all nations and people on Earth. Working through global forums like the UNGA and with tools like the TPNW, we can create a modern approach to address this challenge. Through collective decision-making and norm entrepreneurship, everyone can contribute to the growing norm against nuclear weapons, reduce the risk of their use, and pave the way for a safer world. Urgent steps include supporting the TPNW, developing and adhering to norms against nuclear weapons, and engaging a broad range of stakeholders in the effort to stop nuclear weapons. In this interconnected world, a modern 21st-century global governance system for nuclear weapons is not only necessary but also achievable.

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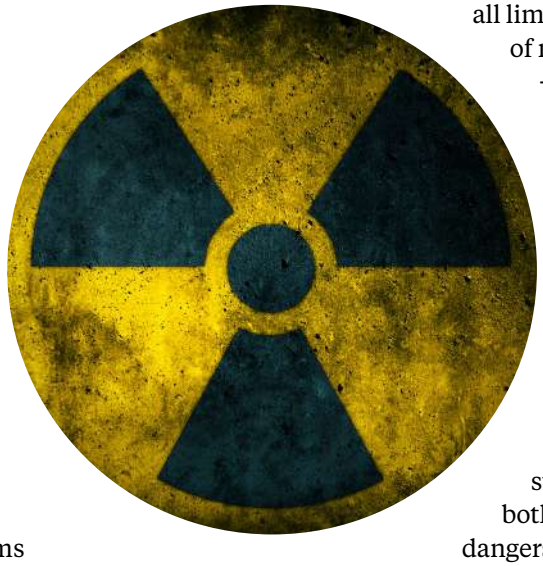
DR. WILFRED WAN

Nuclear weapons in an era of strategic complexity

In June 2023, Vladimir Putin announced his decision to suspend the New Strategic Arms Reduction Treaty (New START), the last vestige of nuclear arms control between Russia and the United States, and the last agreement that set verifiable limits on the size and composition of the largest nuclear arsenals in the world. Already in recent years, both parties had suggested the need to update New START. In discussing a potential follow-on framework, they seemed to consider looking beyond a Cold War-legacy approach centered on numerical parity of stockpiles. Russia pushed for the inclusion of US conventional capabilities and missile defense[1]; the US called to address new Russian nuclear weapons systems as well as non-strategic nuclear weapons, and expressed its desire to include China in talks.[2] It was apparent that the parameters of nuclear arms control had to expand. Reflecting this, in their now-paused bilateral strategic stability dialogue, Russia and the United States established working groups to explore 'Principles and Objectives for Future Arms Control' and 'Capabilities and Actions with Strategic Effects.'



Concerns about the impact of strategic complexity on the nuclear sphere are not unprecedented. Indeed, the possibility of conventional confrontation escalating to nuclear use fueled the development of the crisis-prevention and management toolkit between the Soviet Union and United States five decades ago. Even in the New START context, some experts link recent developments to the 2002 US withdrawal from the Anti-Ballistic Missile Treaty, which removed all limits in place on the deployment of missile defense systems, and - it could be argued—restored incentives to engage in offensive arms racing. Yet the scale of technological advancement in the contemporary security environment outstrips that of periods past, upending longstanding structures and underlying assumptions, and heralding a "deeply challenging period in the management of strategic stability and global order involving both nuclear and non-nuclear dangers."[3] Concepts of 'multi-domain' and 'integrated' deterrence appear regularly in national security strategies and nuclear doctrines; for numerous states, cyber and outer space constitute *de facto* if not *de jure* new domains of military operation, with nuclear response considered in relation to those threats.[4]

HOW CAN MULTILATERAL GOVERNANCE EFFECTIVELY REFLECT THIS COMPLEX AND MORE UNSETTLED REALITY?

Nuclear weapons governance, including arms control, exists in an increasingly interconnected strategic space in which armament dynamics are contingent upon developments across capabilities and domains, and in which risk of nuclear use scenarios are driven by a more intricate range of routes for escalation. Ensuring nuclear weapons are never used again, while reinvigorating arms control and disarmament efforts, requires rethinking the existing framework and its constituent parts. Doing so, fundamentally, means situating nuclear capabilities in the evolving strategic context.

Stakeholders need to reconsider their assumptions about means of achieving strategic stability. There is a need for national security apparatuses to holistically assess the strategic and military utility of nuclear and non-nuclear capabilities in development, while at the same time considering how their adversaries may perceive these. This internal evaluation should inform joint explorations of concerns, as proposed in the aforementioned Russia-US strategic stability dialogue working group, and the systematic untangling of destabilising effects incurred by the developments of individual capabilities. Full resumption of the high-level dialogue among the permanent five members of the UN Security Council presents a key step in this process.

Beyond scope, stakeholders should look to expand governance modalities. It is futile to discuss the future of arms control without acknowledging that relevant capabilities might not have traditional 'arms' to control (as in the cyber domain) or are frequently dual-use, with civilian as well as military applications (as with outer space systems). Exploring complexity is a requisite towards the longer-term goal of negotiating agreements that account for different types of capabilities and impose new forms of restraint to stand alongside traditional legally-binding and verifiable instruments. These may centre on codes of conduct, behavioural norms, or political agreements, for instance that further bound situations in which nuclear weapons are considered for use. A near-term move is for stakeholders to de-silo existing conversations. States and civil society actors could tease out what human nuclear decision-making means in the dialogue around artificial intelligence, building on the 2023 US Political Declaration on Responsible Military Use of Artificial Intelligence and Autonomy. They can also extend the work of the UN processes on cyberspace, diving into which nuclear-adjacent systems constitute critical infrastructure to shield from cyber interference.

More effective nuclear governance also requires states to facilitate more inclusive dialogue, including by breaking down traditional divisions. This includes engaging nuclear-armed states outside the purview of the Nuclear Non-Proliferation Treaty – India, Pakistan ...etc . Stockpile safety and security have presented past opportunities for cooperation; such issues take on added urgency given convergence effects linked to climate change. Nuclear-armed states should also meaningfully engage non-nuclear weapon states, especially those at the forefront of developments in strategic capabilities and/or involved in nuclear-sharing arrangements. The ongoing war in Ukraine is a stark reminder of potential escalation dynamics linked to these. The dangers posed to the European continent by non-strategic nuclear weapons, which remain outside formal arms control agreements, will grow, with the purported stationing of Russian warheads in Belarus, and Poland pushing to host US nuclear weapons on its territory. For now, states can look to more actively involve civil society and industry as means to track relevant developments in science and technology, as the Treaty on the Prohibition of Nuclear Weapons has done by establishing a Scientific Advisory Board.

The nature of the challenge, and the reality of strategic complexity, demands a more dynamic and innovative approach. Smaller groups of like-minded states can implement confidence-building measures centred on transparency and information exchange around relevant strategic technologies, and can devise benchmarks for reducing associated risks. Such pragmatic action can provide much-needed victories to build on. Ultimately however, nuclear weapons governance must take on a more expansive and inclusive form—centred not only on those who possess these specific capabilities but engaging those involved in developments that can impact on them, and those who will be impacted by their use. Doing so can help to ensure these structures can still address nuclear risks today while facilitating progress towards a world free of nuclear weapons.

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Unmuting civil society & applying people-centred approaches

The United Nations (UN) was conceived as a ground-breaking achievement in global cooperation and people-centred multilateralism. Born out of the ashes of the Second World War, its Charter outlines four lofty aspirations in the name of 'We the Peoples'. These are to save succeeding generations from the scourge of war; reaffirm faith in fundamental human rights, dignity and equality; establish conditions for justice under international law; and promote social progress and better standards of living.

Yet, in the face of multiple intersecting crises, including the waging of war by powerful states, egregious human rights violations, eye-watering inequality and runaway climate change, the UN appears to be hamstrung by great power rivalries and bureaucratic ways of working with a predisposition to 'manage' crises rather than avert them through preemptive diplomacy and addressing root causes of festering global challenges.

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In 2023, CIVICUS' State of Civil Society Report lamented that the international system appeared increasingly unfit for purpose when it came to tackling challenges that transcend national borders. In fact, the post-Second World War consensus to seek solutions to global challenges through the UN appears to be at breaking point. At the time of writing hostilities are raging in Israel-Palestine, Ukraine, Sudan and the Sahel region even as millions of people continue to reel from the negative consequences of protracted conflicts and oppression in Afghanistan, Ethiopia, Myanmar, Nicaragua, Syria, Yemen and elsewhere.

With their emphasis on social cohesion and leaving 'no one behind' civil society organisations can help strengthen peacebuilding and democratisation efforts as experiences from ending apartheid in South Africa and the civil war in Liberia attest. Notably, civil society groups bring gender perspectives and the needs of excluded populations into decision making. However, to enable this they need a seat at the table and decision makers who believe in the value of civil society.

But global civic space conditions which enable the participation of civil society are hugely challenging. According to the CIVICUS Monitor – a participatory research platform that measures global civic space conditions – 85% of the world's population live in countries with serious space restrictions where active citizens and civil society organisations find it incredibly hard to organise, speak out or seek transformation of social, economic and political structures.

These trends are also playing out at the UN where the latest report on intimidation and reprisals against individuals and groups for cooperating with UN bodies and mechanisms lists as many as 40 countries as being responsible for these acts. Moreover, many of the UN's state-centred procedures and exclusive decision-making spaces dominated by government representatives sit at odds with the people-centred aspirations of the UN Charter. In times when powerful states are promoting slippery notions such as 'cultural relativism' and 'development with national characteristics' to undermine the universality of human rights, civil society's contributions assume even greater significance both to expose the double standards that bedevil international relations and to overcome north-south dichotomies.

Civil society brings an incredible amount of energy to the UN to advance ambitious commitments. Without full civil society participation, global governance institutions are sure to keep falling short of their potential. It's no surprise that the Sustainable Development Goals which form part of Agenda 2030 – arguably the greatest human endeavour to create peaceful, just, equal and sustainable societies – are seriously off track.

According to the UN Secretary General's 2023 progress report just 15% of the goals are on track while 30% have regressed or not seen any progress since 2015 when the goals were put in place. Indeed, it's no secret that civil society organisations contribute to innovations in public policy, deliver essential services to the most excluded, and importantly help ensure transparency, accountability and participation. But they are increasingly under attack for uncovering corruption and serious human rights abuses.

Tellingly, the much anticipated SDG Summit during this year's UN General Assembly session yielded very little in terms of substantive commitments towards the UN Secretary General's SDG Stimulus Plan urging an annual injection of USD 500 billion to accelerate progress. It is our firm belief that many of the challenges the UN is grappling with can be addressed through better and more robust participation of civil society. But for this to happen, the UN has to embrace civil society engagement as a priority.

We outline below five areas for action identified by the Unmute Civil Society initiative supported by 52 states and over three hundred civil society organisations to make the UN more people-centred in the spirit of 'We the Peoples.'

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First, the UN should maximise opportunities to take advantage of information communications tools (ICT) to broaden participation of a wide range of people and civil society organisations from across the world. Hybrid meeting formats that harness digital tools can enable a broad range of stakeholders to access key policy and decision-making spaces at the UN.

Second, efforts must be made to narrow digital divides that exist across the global North and South. Moreover, investments in digital infrastructures and digital democracy initiatives should be mindful of disparities that exist across gender, rural-urban, economic and minority status, class and other intersections of discrimination.

Third, meaningful participation should be prioritised by amending procedures and practices at the UN to allow for ample time and opportunity for civil society representatives to provide inputs on outcomes documents, attend key meetings and participate as equal stakeholders in crucial negotiations.

Fourth, the value of civil society participation should be celebrated through the adoption of a Civil Society Action Day as occasion to affirm the UN's commitment to enabling civil society participation and drive meaningful debate on improvements.

Fifth, the UN should urgently appoint a People's or Civil Society Envoy to drive best practices on civil society participation across the UN, address asymmetries on how UN forums, agencies and offices engage civil society, ensure participation of a diverse range of civil society stakeholders in the UN's work and to proactively drive the UN's outreach to citizens and civil society groups across the world.

UN Secretary General Guterres has urged ambition to transform the world to bring more justice and equality to international institutions. As we gear up for the much anticipated 'Summit for the Future' in 2024, meaningful civil society engagement will be crucial to turn these words to action.

ADAM DAY

STEFAN LÖFVEN

DAVID PASSARELLI

Preparing for future shocks: opportunities and responsibilities

The growing interest in global catastrophic risks reflects an unease with the trajectory of human activity on this planet. Improvements in scientific survey, evaluation, and foresight methodologies reveal that we are crossing multiple planetary tipping points simultaneously and will likely cross many more soon.[1] As we write this, the world is registering peaks in global warming that scientific models predicted were still years away. These rapid environmental shifts are a potent threat to human civilization.

Layered on this risk landscape are new threats arising from technological innovation, and a return to nuclear belligerence. In July 2023, the United Nations Security Council met to discuss the implications of artificial intelligence for the future of global peace. The meeting highlighted that in both the near and long term, AI will carry a risk of human extinction.[2] One month later, the US Department of Defense warned of an "unprecedented number of complex biological threats" and urged greater investment in response capacities.[3]

Those most exposed to these global threats live in the developing world. The fact that the parts of the world least prepared to tackle future threats are also home to the majority of the world's population should make clear the urgency of this problem: to protect the majority of the world's peoples, we need to rebalance what is today a lopsided investment in prevention capacities.

The COVID-19 pandemic stands as a stark reminder of this underinvestment and the uneven impacts of global shocks. The international community was not prepared to weather a global health crisis in 2019, but the developing world was least prepared; spending on public health was seven times higher in high-income countries. The pandemic led to sharp increases in public spending and borrowing, pushing many vulnerable countries to the brink of debt distress with no working global platform to support debt restructuring. To this day, most of Africa is missing a reliable and robust mechanism for liquidity and balance of payments support—it represents a continent-sized hole in the Global Financial Safety Net.

Our aging systems of global governance have been slow to adapt to this new threat landscape, contributing to a growing sense of dissatisfaction, disaffection, and mistrust in governments and international bodies mandated to protect people and the planet. We must take seriously the prospect of cascading shocks, and build up capacities to deal with multiple threats simultaneously. Layered threats demand more robust defenses. Building these defenses is both an opportunity and a responsibility.

The lead-up to the 2024 Summit of the Future is a once in a generation chance to advance the collective investments needed to safeguard the future of people and our planet. The UN Secretary-General's High-Level Advisory Board's (HLAB) report, "A Breakthrough for People and Planet," calls for a radical shift in international cooperation to tackle the immediate goal of implementing the Sustainable Development Goals and also preparing for the shocks we know will come. The report underscores the importance of fast, effective, representative coalitions that can make and implement critical decisions in the face of minority opposition, where necessary, to deliver on issues of global concern. It calls for networked, multistakeholder partnerships driven by a shared mission, and held accountable through common, enforceable rules that cannot be broken with impunity by any one actor.[4]

These transformations open the door to new forms of partnership with civil society, the private sector, and traditionally marginalized actors in decision-making processes. The build-up of these networks will result in a better alignment of actors and resources ahead of crises, and subsequently cut down response times and coordination costs in the aftermath of a crisis.

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A network approach can also help offset worrying deficits in public sector capacity to deal with novel threats. Over several years, the public sector has been hollowed out, leaving large gaps in scientific and technical expertise. The 'impact hub' model advanced in "A Breakthrough for People for Planet" would facilitate sharing of data and critical skills across the private and public sectors. This must be complemented with new resource investments to build-up the capacity of judiciaries and public administrations to regulate in frontier areas of law.

This is a vision of networked multilateral governance. It explicitly creates more space for women. Women and girls are not only disproportionately affected by crises, but they also play an important role in prevention. We know that women have played unique, substantive, and decisive roles in peacebuilding, conflict resolution, and the fight for environmental sustainability.

In the months since the report was transmitted to the Member States of the United Nations, we have seen some signs of progress. At the Paris Finance Summit, the World Bank announced it would implement disaster clauses for debt deals, suspending country debt payments in the case of extreme weather events, a key recommendation in the HLAB report. This change ensures more money is left to governments to respond to urgent domestic priorities. We have also seen the United Nations move quickly on the governance of artificial intelligence. It recently launched a multi-stakeholder global advisory body to assist in formulating an adequate and adequately resourced response to this new powerful technology. These changes are hardly enough, but they do demonstrate that even when trust in multilateral cooperation is at a low ebb, breakthroughs can be achieved. It is a collective responsibility to ensure that this momentum does not diminish in the years ahead.

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2. https://press.un.org/en/2023/sc15359.doc.htm
3. https://www.defense.gov/News/News-Stories/Article/Article/3502656/pentagon-official-calls-for-total-force-focus-on-emerging-biothreats/
4. There are several examples of coordinated action grounded in shared, enforceable rules. For over two decades, the Kimberley Process Certification Scheme has guided the behavior of countries to prevent conflict diamonds from entering mainstream markets. A multi-stakeholder mechanism with a unique tripartite state, private sector, civil society structure, the KPCS has attracted the participation of over 80 states. Coordinated action through the KPCS process accounts for approximately 99 percent of rough stone diamonds on the market. Participating states must adhere to minimum guidelines, which are strictly enforced. Indeed, upon joining, they must "amend or enact appropriate laws or regulations to implement and enforce the Certification Scheme and to maintain dissuasive and proportional penalties for transgressions." The Kimberley process has well-documented shortcomings. However, it exemplifies the type of multi-stakeholder partnership grounded in enforceable rules discussed here.

CONTINUING THE CONVERSATION

We hope the conversation will continue. You can help us by simply sharing this report with a friend or colleague.

For more information, visit our website:
www.globalchallenges.org

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