

Table of contents

Intro	duction	\dots 1
PART	2025 Scenarios	2
	2025 Scenarios: The global context	3
	Summary of 2025 Scenarios	4
	Urgent steps to avoid the hothouse Earth scenario	5
	Nuclear winter	7
	Lightning never strikes twice!	9
	The fog of data abundance and the proliferation of malicious actors	11
	Hailstorm of hate: white-supremacist groups call for a "day of assault" on minorities.	13
PART	Effective Responses for the Peace and Security Environment Today and Out to 2025	15
	Reimagining leadership	16
	Enhancing trust in crisis management	
	Strategic foresight to co-create resilience in an interconnected world.	18
Conc	lusion	19

Introduction

By Ms Emily Munro

Head of Strategic Anticipation, GCSP

On the one hand, 2025 is just around the corner while, on the other hand, it seems far, far away. In Part I of this publication, experts and associates from the Geneva Centre for Security Policy (GCSP) paint a picture of possible futures in five areas by presenting scenarios that depict potential developments in the period up to 2025. The discussion will include suggestions on what can be done to prevent these scenarios from becoming a reality. In Part II, authors will make specific suggestions on how we can effectively respond to the peace and security environment out to 2025 by using appropriate leadership, crisis management and strategic foresight approaches.

What is clear is that the period between 2021 and 2025 will compel us to:

• Challenge our assumptions: The COVID-19 pandemic has forced us to confront some of our most basic assumptions about how we live and work. In the future, given what is emerging as a result of the pandemic and the other factors shaping our world, we will have to be aware of our own biases and blind spots that prevent us from identifying

the areas where the next major changes will occur and the weak signals that could indicate patterns of emerging change.

- Think ahead: While 2025 is still a few years away, we should all be aware that change can happen very quickly. We may already be able to identify warning signs of possible negative future developments, and in response we must identify the factors we want to foster and the connections and partnerships we want to forge if these negative developments are to be effectively confronted and managed.
- Manage surprise: The nature of the world that will emerge in 2025 is fundamentally unknown, but the one certainty is that surprises will undoubtedly continue to occur, so it is how we react to and manage these surprises that is also critical. Consequently, we need to be thinking about multiple possible futures and how we can constructively influence the immediate environment we find ourselves living in, no matter its nature.

We hope that you will be inspired by the scenarios laid out below, the constructive pathways to deal with these scenarios that are presented, and the effective responses suggested for ways to re-examine your own approaches to the peace and security environment, both today and out to 2025 – and beyond.



2025 Scenarios: The global context

By Mr Vicente Paolo Yu

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The global context shaping the international peace and security environment in 2025 is likely to be characterised by continued and increasing economic inequality between and within countries, which has been shaped by hyperglobalisation since the late 1990s; an increasing digital information and technological divide between rich and poor fueled by rapid technological changes in many industries; and the uneven pace of recovery from the COVID-19 pandemic. The increasing adverse impacts of climate change, biodiversity loss, and other global environmental and health crises will have contributed to severe economic downturns in many countries, especially in the Global South, resulting in large-scale cross-border population movements as people search for peace, security, and economic opportunities. There will be multiple attempts at finding multilaterally cooperative solutions to these challenges, but these may well fall short of their objectives. As a result, 2025 is likely to be fraught with multiple challenges to international peace and security, as countries struggle with the increasingly destructive effects of climate change; internal and external conflict; large-scale disinformation; and populist, racist, and extremist movements at home and abroad.



Summary of 2025 Scenarios



Urgent steps to avoid the hothouse Earth scenario

The UN Security Council is holding an emergency meeting as catastrophic floods affect multiple countries.



Nuclear winter

A terrorist attack escalates into an exchange of nuclear weapons.



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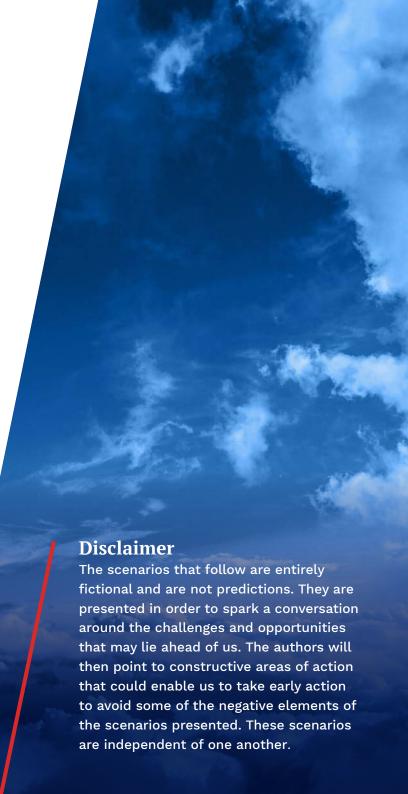
The fog of data abundance and the proliferation of malicious actors

Your avatar becomes your worst enemy!



Hailstorm of hate: white-supremacist groups call for a "day of assault" on minorities

A white supremacist leader uses mainstream and social media platforms to promote violent hate crimes.



Urgent steps to avoid the hothouse Earth scenario

By Ms Anna Brach

Head of Human Security, GCSP

The UN Security Council is holding an emergency meeting after catastrophic floods affected the countries of South-East Asia, causing major loss of life and massive displacement that add to already existing tensions caused by resource scarcities in the region. Due to a lack of decisive and proactive action in the early 2020s, 2025 sees governments forced to react to the catastrophes that they have failed to prevent. Indeed, after a two-year focus on dealing with the COVID-19 crisis in 2020-2021, governments have to adequately refocus on the existential threat brought about by climate change. Over the past five years the climate system has become much more sensitive to temperature rises. Due to changes in the temperature of the air and oceans, and the resultant changes in rainfall patterns and an unprecedented number of high-intensity natural disasters, people's livelihoods are under threat due to water, land and food insecurity, with one of the most immediate of these threats being increasing hunger. While mitigation efforts aimed at reducing the production of greenhouse gases are still being discussed, funds are mainly directed to adaptation to climate change and resilience building, especially in vulnerable low- and middle-income countries. On top of this, climate-related migration flows have rocketed,

adding another 200 million people to global migration flows (which does not include internally displaced people and refugee flows). The situation is dire in the Sahel, the Middle East, South Asia and South America. Even high-income countries are investing in national (as opposed to international) attempts to deal with the consequences of climate change. This additional strain on governments creates a very tense situation that threatens peace and security in a variety of ways. In 2025 countries are facing a crucial decision between cooperating to address this global challenge or focusing on addressing national challenges, which will only lead to more competition and rising conflict.



It needs to be generally recognised that peace and security cannot be achieved if climate change is not addressed. All governments and citizens need to be better informed about the human security implications of climate change and how to avoid them. Ecosystem solutions must be implemented to avoid the unintended negative consequences of only focusing on technological solutions. Climate change discussions need to broaden to include other environmental challenges that affect ecosystems, such as loss of biodiversity and poor resources mismanagement.

2. What can actors jointly do to prevent this scenario from happening?

There could be a coordinated global information campaign to contextualise the effects of climate change on different countries and communities. The UN Framework Convention on Climate Change process needs to become much more ambitious and the nationally determined contributions agreed in the Paris Agreement must be implemented to prevent the global average temperature from rising to 2°C. This should be done at the 2021 Conference of Parties in Glasgow. Finally, the 2021 Biodiversity Convention Conference needs to confirm an increased commitment to biodiversity protection and a stronger link to climate action. Last but not least, the security impacts of climate change must be fully recognised and discussed by both the UN Security Council and the General Assembly.

Nuclear winter

By Mr Marc Finaud

Head of Arms Proliferation, GCSP

Explosions destroy a national parliament in Asia, burying some 700 people, including the president, the prime minister, and most cabinet ministers. The minister of defence, who survives the explosions, claims that the bomb attack was perpetrated by a terrorist group allegedly supported by a neighbouring country. The air force conducts strikes on this country, while armoured divisions cross into its territory. The prime minister of the neighbouring country forcefully denies any responsibility for the explosions and warns that, if its neighbour's attack on his state is not halted within 24 hours, he will retaliate with nuclear weapons.

The invading armed forces continue to advance into the neighbouring territory. The invaded country's short-range missiles with sub-kiloton nuclear warheads strike the invading force troop concentrations, causing mass casualties. Immediately, the invading country responds with missiles equipped with nuclear warheads of up to 40 kilotons that destroy most of the capital and the main cities of the invaded country, killing at least three million people. The invaded country retaliates with dozens of medium-range ballistic missiles with warheads of up to 40 kilotons that destroy the invading country's most populated cities. The surviving government of the invading country

accuses a regional power of having assisted its neighbour with the latter's missile programme and launches conventional missiles to destroy the regional power's warships cruising in international waters. Since one of the destroyed warships was carrying nuclear weapons, the regional power launches nuclear-tipped missiles to destroy two cities of the country that carried out the invasion.

After a few months the smoke clouds from burning cities block all sunlight around the planet and cause a nuclear winter that starves well over two billion or more people.



The acquisition of weapons of mass destruction, particularly nuclear weapons, depends on the history of a particular inter-state conflict, the security environment and countries' threat perceptions, in addition to pressure from the military-industrial complex. Urgent measures needed to prevent this scenario include the implementation of: (i) conflict prevention measures and third-party mediation; (ii) confidence- and security-building measures such as inter-military communications and hotlines between opposing countries; and (iii) nuclear risk reduction measures, e.g. reducing the alert levels of opposing nuclear-armed forces, physically separating delivery vehicles (missiles, strategic bombers) from nuclear warheads so as to make their use more complicated and visible, etc.

2. What can actors jointly do to prevent this scenario from happening?

The UN Security Council and Secretary-General should be more active in mediating between parties that are in conflict and promoting conflict prevention and resolution programmes. Civil society organisations from opposing countries should bridge the divide between these countries to solve disputes and help overcome nationalism. Bilateral negotiations involving the military should pave the way for win-win agreements and join multilateral efforts to reduce nuclear risk and gradually eliminate nuclear weapons.

Lightning never strikes twice!

By Dr Robert Dewar

Head of Cyber Security, GCSP

RNN News announces its new personalised "Lightning News Service"*

Are you tired of generic, irrelevant, untailored and repetitive news stories clogging up your inbox? Would you like only the most interesting, relevant and personalised news content to be created with only YOU in mind? RNN News can make this happen! We are proud to announce the launch of our latest cutting-edge "Lightning News Service".* Our algorithms ensure that stories are highly personalised and tailored only and specifically for YOU!

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* Disclaimer

Stories published by the "Lightning News Service" are created through the aggregation of personal private data, not daily news events. Data is gathered by analysing the metadata of personal e-mails, messages, e-shopping preferences and public communication networks, and cross-referencing these with the zettabytes of data on general population tendencies and each individual's personal habits. RNN News accepts no responsibility for the truth or accuracy of the stories generated through its service.



Individuals should make themselves more aware of how private corporations collect, store and use their data. A better understanding of the zettabytes of data already collected on individuals by online retailers is crucial to understanding how individual digital identities are created. Equally, greater transparency is needed on the part of commercial enterprises. Governments and international organisations should increase their collective efforts to develop normative legislative regulations to encourage and enforce transparency, to better protect personal data, and to promote public awareness of the wider effects of using such selective and "personalised" information services. This includes the spread of fake news, which could fuel social and political unrest.

2. What can actors jointly do to prevent this scenario from happening?

Governments and civil society should use both soft and hard measures to encourage corporations to be more transparent and individuals to take more responsibility for their actions and online behaviour. Because vast numbers of young people live a great deal of their lives online, school and college curricula should be adapted to include sessions on online behaviour and "digital citizenship", and should promote sensible interaction with free-to-use online and digital services - because if you are not paying for an online product, then you and your personal data are the product. Promoting education on and awareness of these types of services and their effects on privacy, data security and misinformation should be at the forefront of joint efforts to prevent this scenario from happening in a way that could disrupt the wider peace and security environment.

The fog of data abundance and the proliferation of malicious actors

By Dr Jean-Marc Rickli

Head of Global and Emerging Risks, GCSP

We live in the era of the exponential increase in digital technologies. If the current pace of exponential growth in computing capacities continues, by 2025 computer processing units will be ten times more powerful than today and algorithmic computation will be multiplied by a factor of more than 100,000. Such powerful technology could have disastrous consequences if it falls into the hands of malicious actors. The problem is compounded by the fact that in this era of digital exponentiality access to technology and its democratisation follow the same pattern.

What if your neighbour with whom you are having some kind of dispute were to decide to create an avatar of you on social media to discredit your reputation. "How could this possibly happen?", you might ask. Well, unless you have been living in a cave for the last thirty years, your digital footprint is already very clearly demarcated. Remember, no data is neutral. Advances in artificial intelligence (AI) and the diffusion of emerging and disruptive technologies provide individuals with new means of coercion and manipulation that were only available to states not so long ago. A technology that did not exist prior to 2014 – generative

adversarial networks, or GANs - is now spreading worldwide and allows each of us to create deep fakes or synthetic media, where existing images and videos are superimposed onto other source images or videos. It is now possible for anyone to create forged videos of you and spread them on social media. But what if instead of creating just a video of you, your neighbour creates a permanent avatar of you that could interact 24/7 on any digital platforms? It would compile existing digital data about you, increasingly by sourcing biological data (remember the DNA sample you provided to that genealogy website?) and brain data (because by 2025, we could expect some basic brain-computer interface devices to hit the market). This avatar would then become your worst enemy and the burden of proof would be reversed. You would have to prove that it was not you who committed a hate crime or spread insanities on social media, but your avatar. The problem is that your double would probably know more about you and your weaknesses than you do yourself - which is a very frightening prospect indeed!



The democratisation of digital technologies, which includes the spread and increasing use of AI, cannot be stopped. Yet democratisation implies proliferation. This proliferation of the potentially disruptive application of AI should be addressed by raising the cost of access and entry, as well as embedding safeguards in the technology.

2. What can actors jointly do to prevent this scenario from happening?

Digital technologies know no boundaries and affect every single person on the planet in some way. A truly global multistakeholder governance system should be established that defines basic principles to safeguard humankind from the potentially catastrophic misuses of AI by malicious actors.

Hailstorm of hate: white-supremacist groups call for a "day of assault" on minorities

By Dr Christina Schori Liang

Head of Terrorism and Preventing Violent Extremism, GCSP

A white-supremacist leader makes a bid for political power by threatening and disparaging his political opponents, including by condemning their political, economic and social choices and through personal attacks. This leads to a cascading effect where both mainstream media and social media platforms are driven by a continuous feed of negative rhetoric. In order to promote polarisation and civil disorder, white-supremacist groups spread incendiary racist and xenophobic content, misinformation and conspiracy theories via social media. They design special algorithms that expand this discordant content faster and wider than ever before. Hate-driven misinformation campaigns lead to greater urban violence, with an increasing number of attacks on ethnic and religious minorities. Extremists call for a "day of assault" when people are called out on a specific day to attack and kill ethnic and religious minorities in both rural and urban settings. This leads to general rioting, murder, and general unrest in multiple villages and cities worldwide.



Social media companies must put in place emergency protocols and gatekeepers to stop nefarious misinformation campaigns from spreading online. Social media companies could design technical forensics systems and integrate them into their platforms that will allow people to check for misinformation. They can design artificial intelligence protocols to measure an uptick in dangerous content. Content moderation must be carefully devised to avoid stepping on free-speech principles.

2. What can actors jointly do to prevent this scenario from happening?

Laws must be enacted and enforced that will legally prevent individuals from spreading misinformation campaigns and prevent the use of algorithms that spread hatred and conspiracy theories and inspire acts of violence. A whole-of-society approach that includes partnerships among schools, local leaders, civic organisations and citizens would help to prevent the spread of misinformation and hate campaigns and help build societal resilience. Whole-of-government approaches must be planned, beginning with local leaders up to the highest level of government in order to instil inclusive and fair/just leadership practices.





Reimagining leadership

By Mr Peter Cunningham

Head of Leadership, Co-director, Geneva Leadership Alliance, GCSP

One way to consider the role of leadership in addressing increasing peace- and security-related complexity, interconnections, and the rapid pace of change is to think about the outcomes we need from our leaders over the next five years.

Leaders are expected to sit at the top of a hierarchy and to have the experience and wisdom to make the "right" decisions. This view of leadership is commonplace but is becoming increasingly limiting. If most decision-making powers lie with an individual or small group, then the quality of the decisions they make is limited to the capacity and biases of this group, and will therefore only be able to respond in a very limited way to the challenges caused by the increasing complexity of peace and security challenges and the rapid pace of change. Fears of making "wrong" decisions are also more likely to emerge, reducing the willingness of decision-makers to engage in, or allow for, credible experimentation - which is vital for productive and secure innovation. Also, more likely is the emergence of risk-taking behaviours motivated by overconfidence and self-interest.

An inverse hierarchy, comprising a more networked way of thinking, with more people empowered and trained to make micro-decisions directly relating to their work means more people are scanning more of the complex ecosystem that their organisation is part of. They will be better able to pick up on early signals indicating important changes in that ecosystem. Even more importantly – because it is here where many crises can be averted – they will be empowered to share that information early and respond more quickly to those changes.

A failure to adapt top-down hierarchical ways of thinking about leadership risks lurching from one crisis to the next until something existential breaks the pattern – possibly with disastrous consequences.



Enhancing trust in crisis management

By Mr David Horobin

Head of Crisis Management, GCSP

As a result of the global COVID-19 pandemic, the world's states and multilateral institutions need to undertake a deep examination of all the organs of national preparedness, response and resilience that are supposed to deal with such high-impact events. A major zoonotic pandemic was not an unforeseen threat and had appeared on national risk registers several years before the outbreak in 2019-2020 – and will likely occur again, given the current global high-intensity agricultural practices and demographic shifts.

By 2025 such reviews will need to principally assess resilience both at an organisational and social level by evaluating the extent to which the trend of low-cost financial investment driven by efficiency rather than effectiveness has hampered national and global crisis-management capability; this applies equally to complex bureaucratic institutions that will likely be faced with funding and relevancy issues. Learning lessons is one thing; applying them requires courageous and inspirational leadership that is capable of breaking out of short-term patterns of thinking.

Loss of trust in leaders' ability to navigate effectively through crises and communicate honestly and transparently with affected stakeholders has significantly impacted social capital, creating a dangerous sense of nihilism. The next crisis – whenever it happens and whatever form it takes – will mean that those who have paid the post-COVID, post-trust price in terms of their security, welfare and well-being will no longer assume that governments will be capable of doing the right thing, and will attempt to take their futures into their own hands. The unintended consequences of such a lack of trust will be far more impactful on global security than has ever been seen before.



Strategic foresight to co-create resilience in an interconnected world

By Ms Mónica Lilián Méndez Caballero

Programme Manager, Security, Gender and Development Institute

How do we address rapid change and uncertainty? How do we shape the 2025 peace and security environment?

Strategic foresight helps people and organisations to confront the future by addressing three key factors:

- 1. Mindset: This means (i) being aware of the assumptions that underlie our decisions; (ii) taking responsibility for our decisions and omissions; (iii) encouraging sustained long-term thinking that takes into consideration several future generations; and (iv) fostering inclusiveness.
- **2. Processes**: This means applying strategic foresight methods and tools.
- **3. Capacity**: This means employing both tangible and intangible resources to expand appropriate capacity.

Mindset is the backbone of the four stages of strategic foresight (see below), because it either locks us into our habitual trajectories or prepares us to create what is needed to confront a rapidly changing reality. Thus, the most useful exercises start by questioning the following factors at each stage of our thinking and decision-making processes:

- **1. Identifying trends, risks and scenarios:** Whose voices are we willing to listen to in this process?
- **2. Sense making:** How do our anticipatory assumptions determine why and how possible future scenarios are imagined?
- **3. Responsive design:** What and who will be affected by our proposed responses to particular circumstances?
- **4. Implementation:** How do we ensure that our responses address inequalities and do not increase them.

When we are dealing with uncertainty, good strategic foresight provides the space for a recalculation of rapidly changing circumstances by recognising both threats and opportunities, and allows us to purposefully direct our efforts to effectively co-create institutionalised responsive preparedness for any unfolding crisis.

Conclusion

By Ms Emily Munro

Head of Strategic Anticipation, GCSP

What can be done today to help achieve a peaceful and secure environment for all in 2025? This is the fundamental question behind the preceding pages. The scenarios described do not attempt to predict the future, but briefly describe one way in which circumstances could develop. These scenarios are meant to provide a contrast to today and provoke thinking on what may need to occur in the coming years to not only prevent such scenarios from becoming reality, but also to identify areas where more effort can be made today to promote the kind of future we wish to live in.

The ideas presented here can also help to unpack the complexity and uncertainty that we are facing today. We have the tools to do this, but it may require an extra effort to do things differently, to approach a problem from a new perspective, and engage with a more diverse set of actors than has been previously done. As the authors have suggested above, it will require the reimagining of leadership, the enhancing of trust when a crisis does occur, and the co-creation of resilience through the use of strategic foresight.

The perspectives given in this publication are therefore meant to be an inspiration and an invitation to you to reflect on the following key questions:

- How do I think the global peace and security environment could unfold from my own perspective?
- What can I do today to promote the positive pathways to 2025 that I wish to see, and proactively respond to the negative challenges that I see developing?
- With which people do I need to work in ways that will enhance our mutual understanding, with the possibility that these people may well be different from those I am working with today?
- When must I act to be in time to influence the future?

The Geneva Centre for Security Policy (GCSP) is an international foundation established in 1995, with 52 member states, for the primary purpose of promoting peace, security and international cooperation through executive education, applied policy research and dialogue. The GCSP trains government officials, diplomats, military officers, international civil servants and NGO and private sector staff in pertinent fields of international peace and security

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