

Navigating New Horizons

A global foresight report on planetary
health and human wellbeing



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Executive Summary

As the leading global authority on the environment, the United Nations Environment Programme (UNEP) plays a critical role in keeping the environment under review and finding solutions that inspire, inform and enable nations and peoples to improve their quality of life without compromising that of future generations.

UNEP strives to empower the United Nations (UN) community, its Member States and individuals to identify issues requiring vigilance and to take anticipatory actions that can rebalance planetary health and human wellbeing. To do this, the organization needs to have a responsive, holistic approach to meet the demands of a rapidly changing world—a world of more fragility and greater uncertainty. UNEP has embraced foresight, a strategic capability and set of tools, to identify and explore possible disruptions on the horizon, to confront our ways of thinking about them and learn how applying such forward-thinking tools can prepare us for the challenges and opportunities ahead.

Foresight helps detect signs of approaching change, determine their potential developments and strengthen resilience against the unexpected—translating future uncertainty into present day choices. Put simply, careful and incisive foresight can help UNEP to achieve its aims of identifying and working on the right issues at the right time for the right audience.

This *Navigating New Horizons* report outlines a process focused on planetary health and human wellbeing—an intentional framing to expand the range of issues and informed views that typically shape UNEP’s work. Why? To ensure we are looking in places not normally considered, but where the organization can act or provide advice for others with relevant portfolios.

This 18-month foresight process—which encompassed a two-part Delphi survey, the development of scenarios, sensemaking at global and regional levels and engaging with youth voices—has resulted in diverse data points and qualitative feedback to uncover what the future (near and far) could hold for planetary health and human wellbeing.

Through the process, it has become clear that the world is facing a different context than it faced even ten years ago. Some of the issues are the same, but the rapid rate of change combined with technological developments, more frequent and devastating disasters and an increasingly turbulent geopolitical landscape, has resulted in a new operating context, where any country can be thrown off course more easily and more often.

The world is already on the verge of what may be termed “polycrisis”—where global crises are not just amplifying and accelerating but also appear to be synchronizing. The triple planetary crisis of climate change, nature and biodiversity loss, and pollution and waste is feeding into human crises such as conflict for territory and resources, displacement and deteriorating health.

The speed of change is staggering. Social norms, employment, leisure and our relationship with nature are all inexorably shifting. The rapid development of new technologies and artificial intelligence (AI) are influencing all facets of life. Overlapping and interrelated factors will influence

the environment—these include competition for natural resources, new forms of conflict, mass forced displacement and migration, persistent widening inequalities, declining trust and weakened institutions, the prevalence of mis/disinformation and an increasing global multipolarity.

This new global context is giving rise to a series of critical shifts, emerging issues and potential threats that may or may not eventuate, but which the world needs to keep a watching brief on due to their potential to significantly disrupt different sectors and hence affect planetary health and human wellbeing. As witnessed over the past two years, even seemingly improbable or distant disruptions or circumstances—e.g. COVID-19, the Russian Federation’s invasion of Ukraine, major conflicts and mass displacement in Gaza and Sudan, the global energy and cost-of-living crises—can quickly become a reality and affect the whole world. Thus, paying attention to signals of change, including weaker ones, with a view to anticipating disruption and minimising surprise is paramount.

The emerging issues and signals of change presented in the report are both new and old, with the convergence and interaction between seemingly distinct issues and the new global context making the signals important. The technology signals include the emergence and diffusion of innovations including speculative technologies with the report focusing on how AI will interact with and influence the decisions made about the environment, lives and lifestyles, for both positive and negative. Demand for critical minerals specifically, including for clean energy technologies, is set to increase rapidly and could have significant impacts on biodiversity and nature, food and water security and pollution. These pressures are extending to the deep sea the outermost reaches to our planet's atmosphere and even outer space. This critical shift intersects with other technology signals of change including the rapid growth in space activity and orbital debris, and the potential deployment of Solar Radiation Modification (SRM) technologies, also known as solar geoengineering, which while perceived as unlikely must still be monitored.

Old issues such as weaponization of technologies and access to water, food, energy and critical infrastructure have been made potentially more problematic with the convergence of new technology and inability of legal systems to keep pace; notably AI and autonomous weapons systems, which increase the risk of environmental destruction and biological warfare. Growing antimicrobial resistance in the environment, emerging zoonotic diseases and ancient viruses arising from thawing permafrost are all signals requiring monitoring. Uninsurable risks and losses jeopardizing long-term prosperity, poverty alleviation and environmental protection; surging fossil fuel subsidies eroding the energy transition; and a looming mental health crisis amongst adolescents whose neural systems are increasingly primed for anxiety—each of these issues hint at deeper and potentially disruptive changes on the horizon. Ignoring these signals, as unlikely as they may be, comes with peril.

The good news is that just as the impact of multiple crises is compounded when they are linked, so are the solutions. This report has leveraged foresight to generate insights that can shift the momentum from the brink of polycrisis to polystability. Key to a better future is a focus on intergenerational equity and a new social contract reinforcing shared values that unite us rather than divides us. A new social contract would involve the global community pursuing transformative change across technological, economic and social factors and paradigms and collective goals.

Such a contract—including the further refinement and integration of a liveability approach and supplemental index encompassing new economic and health measures—will better reflect, foster and support local, network-driven resilience.

Adopting agile and reflexive governance—with shorter-term time-bound targets to enable course correction combined with multi-layered monitoring at the UN level—would significantly enhance achievement of the Sustainable Development Goals (SDGs). Placing a new global emphasis on wellbeing metrics rather than pure economic growth will help the transformation needed. The future must be consultative, multilateral, cooperative and integrate the voices of traditionally marginalised groups, including women, youth, local communities and Indigenous Peoples.

Special thanks to UNEP's funding partners. For more than 50 years, UNEP has served as the leading global authority on the environment, mobilizing action through scientific evidence, raising awareness, building capacity and convening stakeholders. UNEP's core programme of work is made possible by flexible contributions from Member States and other partners to the Environment Fund and thematic funds. These funds enable agile, innovative solutions for climate change, nature and biodiversity loss, and pollution and waste.

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