Frequently Asked Questions

Navigating New Horizons: A global Foresight report on Planetary Health and Human Wellbeing

Q1. What is Foresight? How is it different from Strategic Foresight and Horizon Scanning?

Foresight is a structured, multidisciplinary approach to thinking systematically, exploring trends, identifying emerging changes, and informing current decision-making and priority-setting. Foresight is not about forecasting or predicting the future, nor is it intended to entirely replace traditional forms of analysis and policymaking. It encompasses the use of scenarios and horizon scanning Delphi surveys. UNEP has used all these foresight tools.

Horizon Scanning is the foundation of a Strategic Foresight process and is the systematic approach to detect early signs of potentially important developments. It involves a set of methods, most commonly surveys, and assumes ongoing monitoring of changes as they mature into trends.

Strategic Foresight is an organizational capacity that informs the development of strategy. It allows decision-makers and stakeholders to look outside, above, and beyond, and to have structured strategic conversations about change, uncertainty, and complexity, taking into account the insights from a foresight exercise in organizational development, planning and prioritization.

Q2. Why did UNEP embark on the Foresight process?

UNEPs foresight work was launched in line with the UN Secretary-General's Quintet of Change initiative, taking a science-based approach with the view to establishing what sort of Foresight UNEP should use in future to fulfill its mandate. It was undertaken in partnership with the International Science Council (ISC).

This work builds on UNEP's long history of identifying new and emerging issues as part of the organization's mandate to keep the environment under review. This process ultimately seeks to formalize and advance UNEP's strategic foresight and futures-thinking work by putting in place an institutionalized approach to strategic foresight and horizon scanning. In so doing, UNEP will fulfil its mandate of monitoring the environment through identifying emerging signals of change that could have implications for maintenance and protection of the environment.

Q3. What did the UNEP Foresight process entail?

UNEP implemented its foresight trajectory in partnership with the ISC and under the guidance of a global Foresight Expert Panel.

UNEP used several foresight tools, including a two-step Delphi survey to identify and prioritize possible emerging issues, while also using scenarios to. aid the identification of possible disruptions and their implications and help participants of the sense making workshops to think about the future through plausible lenses, supporting them in stepping outside their comfort zone to explore issues and solutions. The scenarios were built by participants with several iterative and mutually supportive data gathering exercises. These included a global sensemaking foresight expert panel, hosting six regional sensemaking workshops, and a youth workshop.

In the Delphi process, the first survey asked participants including Member States, Major Groups, and experts to nominate three emerging issues with supporting evidence for the submission. Some 1,120 submissions were received. Data obtained from the survey was presented to the Foresight Expert Panel and to the participants of each of the regional and youth workshops, who were asked to prioritize the signals and provide the necessary regional contextualization. The second survey asked respondents, for their views on the potential significance of 20 signals of change. Respondents were asked to assess the likelihood, intensity, and timeframe for potential impacts associated with each signal. The 20 signals presented in the survey were selected based on the signal prioritization exercise carried out by the UNEP Foresight Expert Panel in March 2024. The final report presents 18 of those signals and their potential impact and links to planetary health and human wellbeing. More information on the UNEP foresight methodology can be found here.

Q4. What were the main findings?

The Foresight process intended to identify signals of change, specifically those issues for which there is evidence of a small but potentially important development, practice, idea or innovation that points to a future possibility. Many participants highlighted issues that are now solid trends resulting in the process identifying 8 critical shifts that have occurred in recent years, along with 18 signals of change that have the potential to significantly disrupt management of the global environment. The 8 critical shifts observed are as follows and a selection of signals associated with those shifts are outlined below (see the report for detail):

- **The relationship between people and the environment is in flux** and is evidenced by increasing frequency and intensity of weather events and a rapidly changing environment that is impacting planetary and human wellbeing. Several signals of change were identified in this critical shift, such as thawing permafrost and increases in pollution and waste, both having the potential for significant implications for human and wildlife health and wellbeing into the future.
- **Critical resources - scarcity and competition reshaping dynamics of global security** is apparent through the demand and supply of critical minerals and metals as well as in conflict for natural resources. This issue may have reverberating environmental consequences if countries and companies do not adopt efficiency and circulatory as principles of operation.
- **Artificial Intelligence (AI), digital transformation, and technology – a wave of change** was seen as an advancement offering opportunities for economic growth and social progress, but with multifaceted implications for the environment. While AI and digital transformation can bring many benefits, potential environmental implications include increased demand for critical minerals, rare earth elements, and water resources for mining the metals needed to meet new data centre and renewable energy demands.
- **A new era of conflict -** Conflict causes environmental impacts and leaves behind legacy issues that will be dealt with for many years, with significant impacts on human health due to, among other things, the destruction of infrastructure and the use of munitions introducing new contaminants into the environment.
- **Mass forced displacement -** The combination of conflict and climate change is affecting both internal and external displacement, with a wide range of environmental impacts from the lack of services such as water, sanitation and hygiene, solid waste management, and energy provision.

- **Misinformation, declining trust and polarization -** The decline in trust in science and institutions is an increasing issue, manifesting differently in various contexts. Some factors contributing to this decline include: perceived failures to fulfil environmental commitments, worsening economic instability, rising inequality, corruption, and the proliferation of misinformation via social media platforms, eroding trust in traditional media sources. Lack of trust in science could seriously undermine decision-making and affect responses to the triple planetary crisis.
- **Persistent and widening inequalities -** Inequalities in wealth and income lead to ecological inequities. The wealthiest people contribute the most to climate change and environmental degradation; one recent study finds that the wealthiest 1 per cent of the global population and the poorest 66 per cent each account for 16 per cent of GHG greenhouse gas emissions.
- **Polycentricity and diffusion of governance -** Multipolarity is already evident, and new and diverse forms of governance could improve environmental outcomes depending on the ability to create harmonized frameworks that enable transparency and accountability. By developing and implementing new tools and actions to reconfigure financial systems and reroute capital flows – a positive signal of change identified in this process – could help to reduce inequalities, eradicate extreme poverty, and address environmental crises.

Q5. What are the signals of change that UNEP thinks are the most important?

No one signal is more important than another, as they represent signals of change that, if materialized, would have major disruptive capacity. Of the 280 signals identified in this process, the top three identified as most likely to occur, and as perceived by respondents to the Delphi survey as having the most intensive impact, were: Uninhabitable spaces; Unforeseen impacts of harmful chemicals and materials, and New zoonotic disease spillover. These three issues can be prevented by implementing international goals addressing climate change, conserving and using biodiversity sustainably, and preventing pollution and waste. Given their potential impact on planetary health and human wellbeing, these issues must be monitored and prevention strategies implemented to prevent these weak signals from becoming solid trends.

Q6. Some of the signals identified don't seem relevant to UNEP's mandate, why are they included in the report?

Foresight processes encourage us to look at topics within UNEP's mandate through the lens of issues that are not traditionally within our consciousness. For example, conflict was identified as a critical shift, with environmental impacts increasing both due to the nature of conflicts and where they are taking place. The related signals of artificial intelligence and weaponization, as well as biological warfare, were identified in the original Delphi survey as being potentially disruptive to planetary health and human wellbeing. Given that UNEP is mandated to keep the environment under review, it was apparent that these are areas that needed to be moved into UNEP's collective consciousness for regular monitoring. Similarly, other signals, such as eco-anxiety or the process of actively discarding practices that harm the environment, or exnovation, may seem irrelevant; however, they would impact the success of the implementation of environmentally-focused interventions and must be kept under review by UNEP.

Q7. What are the issues UNEP thinks the world should be paying attention to?

Addressing the environmental challenges the world faces demands a multi-pronged and integrated approach. Climate change, biodiversity loss, and pollution are not isolated challenges, but rather a complex web that is being exacerbated by new challenges in the form of the critical shifts - a polycrisis - identified through UNEP's Foresight Report.

Focusing solely on one aspect is no longer sensible - instead, interrelated issues must be tackled simultaneously. For example, limiting global warming necessitates a rapid reduction in greenhouse gas emissions through a green energy transition. That same transition creates a demand for, and subsequent extraction of, critical minerals and metals affecting biodiversity and human health. The report invites countries to consider how to undertake such mining and production activities in a way that is environmentally responsible, while also addressing legacy issues, justice for local communities and, where relevant, appropriate benefit sharing.

But this can't come at the expense of ecosystems. Healthy wetlands, forests and oceans are vital carbon sinks, and their conservation and sustainable use is crucial. Supporting fully effective ecosystem management will affect the repercussions of climate change, including the increasing risk of creating uninhabitable spaces. It will also allow monitoring of the changes in privatized micro-environmentalism and identify loopholes and fraudulent practices in carbon offsetting proposals.

A polluted environment not only harms human health, it also damages ecosystems. Addressing pollution will ensure a future where the impacts of antimicrobial resistance are reduced and managed, and the harmful impacts of chemicals are known and avoided.

The solutions must be synergistic. In this polycrisis, a holistic and multifaceted approach is paramount. By addressing climate change, biodiversity loss, and pollution with equal focus and interconnected solutions a healthier planet for ourselves and future generations can be created.

Q8. What can be done to address existing environmental challenges and reduce potential disruptions from new issues?

There are certainly many challenges, and the trends of environmental change are all in the wrong direction. However, UNEP remains hopeful and believes that by openly identifying and addressing these issues, the drivers and mitigation measures can be addressed thereby preventing weak signals them from becoming solid trends. To succeed, we rely on our partners and stakeholders in governments and the private sector to implement their commitments to achieve the Paris Agreement targets and the goals of the Kunming-Montreal Global biodiversity Framework and the SDGs.

Integrating horizon scanning and foresight as standard tools to keep the environment under review and to inform strategic planning, will allow UNEP to consider whether to include the issues in its existing workstreams or to advise where other agencies could take action. This approach will enable UNEP to address global environmental changes comprehensively while keeping an eye on signals with major disruptive potential. Foresight is a tool and a process that creates opportunity to work across organisations and silos.

Q9 What is UNEP going to do with this report now?

The objective of implementing a foresight trajectory is to develop a systemic, UNEP-wide, approach to addressing emerging issues proactively, with the view of providing guidance on future work programmes and to sister agencies within the UN system about environmental issues which may have significant impacts, supporting them in minimizing surprises.

The outcomes of the foresight work will be integrated into UNEP's strategic planning, inform UNEP's next medium-term strategy (MTS) and presents an opportunity to consider expanding programmes in priority areas.

The report feed into the Summit of the Future and member state deliberations on the issues of relevance to them. As such, it will serve to provide inputs into the preparatory discussions and events, including the High-level Political Forum, in the lead-up to the Summit of the Future as they relate to environmental dimensions.

Q10. What are the potential implications of the report for citizens of developing countries? Some of the signals identified do not seem particularly relevant in their regional context so why were they included in the report?

Some of the signals of change outlined in the report may seem far removed from the daily realities faced by many in low-income countries and small island developing nations. Emerging technologies like AI or the rapid expansion of space activities might feel like distant concerns when basic issues like conflict, food security and clean water are more pressing. However, this report presents an opportunity for empowering the developing countries to shape their future. The report aims to meet nations where they are and serve as a compass to facilitate in navigating potential challenges and opportunities presented by various trends. This can be achieved by:

- Serving as an early warning system: By identifying nascent trends, even those seemingly far-off like AI, the report allows developing countries to anticipate their potential impacts. This foresight can inform proactive planning and policy development to mitigate negative consequences and harness potential benefits.
- Supporting a just transition: the report goes beyond simply highlighting trends; it advocates for a just transition. This means ensuring that developing countries are not left behind in a rapidly changing world. The report can guide the development of strategies that promote equitable access to new technologies and resources, fostering inclusive growth and sustainable development.
- Locally Driven Solutions: The report acknowledges the unique context and strengths of developing countries. It aims to inspire locally driven solutions by showcasing examples and best practices, particularly those that have been successfully implemented by women, youth, and indigenous peoples and local communities who have successfully navigated emerging challenges
- Global Collaboration: The report underscores the importance of global collaboration. By anticipating future scenarios, developing countries can engage in international discussions from a position of knowledge and preparedness. This fosters a more equitable sharing of resources, expertise, and benefits associated with emerging technologies.

Ultimately, the report serves as a springboard for discussions on how the nations can leverage future trends to achieve sustainable development goals and build a more just and resilient future. By understanding the potential of emerging technologies and proactively shaping their development and deployment, developing countries can ensure these advancements empower its people and close the development gap.

Q11 There seems to be a heavy focus on youth in the report, why is this the case given that the shifts described, and the signals of change will affect people of all ages?

The future belongs to young people, and this foresight report hopes to equip them with the information they need to navigate towards the future they will inherit by empowering youth to become active participants in shaping their world.

This report serves as a springboard for action. By understanding potential futures, youth can envision the world they desire and identify the steps needed to achieve it. Armed with this knowledge, they can become powerful advocates, influencing decision-makers and ensuring a future that prioritizes their needs. The report hopes to provide youth with the information they need to effectively engage in informed discussions about emerging trends, shaping the conversation towards a more just and sustainable future and better advocating for the future they deserve, and ultimately, inheriting a world worth living in.

NOTES TO EDITORS

About the UN Environment Programme (UNEP)
UNEP is the leading global voice on the environment. It provides leadership and encourages partnership in caring for the environment by inspiring, informing and enabling nations and peoples to improve their quality of life without compromising that of future generations.

About the International Science Council (ISC)
The International Science Council (ISC) works at the global level to catalyse change by convening scientific expertise, advice and influence on issues of major importance to both science and society.

The ISC is an international non-governmental organization with a unique global membership that brings together 250 international scientific unions and associations, national and regional scientific organizations including academies and research councils, international federations and societies, and young academies and associations.

For more information please contact:
News and Media Unit, UN Environment Programme