ANNEX 1: RISK IDENTIFICATION AND DEFINITIONS

While there is no United Nations definition of global risks, for the purposes of this report, a "global risk" is defined as *"an event or condition that would have a significant negative impact on a large portion of humanity and the planet."*

The information presented in this report is grounded in a perception study of 28 global risks, identified through a rigorous and structured process. This process began with an extensive literature review of over 40 well-known global risk reports, sourced from global, regional, and national levels, and authored by a diverse range of stakeholders, including the private sector, public sector, and civil society. This review resulted in the identification of more than 100 risks, which were then categorized using the STEEP framework (Societal, Technological, Economic, Environmental, and Political) (Table 1).

Table 1: STEEP framework

Category	Definition
Societal	Risks that affect the stability, cohesion, and overall well-being of societies. These risks are often driven by factors such as inequality, public health challenges, and social unrest, and can lead to widespread disruptions in the social fabric.
Technological	Risks that emerge from the development, deployment, and reliance on technology. These risks encompass issues related to the availability, security, and equity of technological infrastructure and services.
Environmental	Risks that arise from the degradation of natural ecosystems and changes in climate patterns, affecting the sustainability of life on Earth.
Economic	Risks that impact the stability and growth of global economies. These risks are closely related to financial systems, markets, and the broader economy.
Political	Threats that negatively impact geopolitical relations or undermine political stability.

The initial long list underwent a detailed risk-by-risk assessment conducted by the Pardee Center for International Futures at the University of Denver, which involved the following steps:

1. Clearly define each risk, and how it could materialize.
2. Conduct an in-depth review of existing literature from research and policy sources to deepen the understanding of each risk, focusing on drivers and potential outcomes.
3. Informed by this literature, estimate the likelihood of each risk occurring by the year 2050.
4. Analyze the potential impact of each risk within the broader context, considering the wider implications of its occurrence.

Based on this rigorous assessment, a shortlisting exercise was conducted. This list was carefully curated to ensure it was holistic, capturing a comprehensive range of risks. Each risk on the list was selected because it was determined to have a non-negligible probability of occurring and a significant negative impact on both humanity and ecosystems.

Subsequently, the refined list was reviewed by over 20 technical focal points—nominated by members of the Secretary-General's Executive Committee, selected specialized United Nations agencies, and verified by technical representatives from all five Regional Commissions of the United Nations. Consultations held between December 2023 and February 2024, culminated in a final list of 28 global risks, categorized by the STEEP framework (Table 2). This list was officially validated and endorsed by the Deputies Committee and the Executive Committee of the Secretary-General and serves as a foundation for the perception study that underpins this report.

Table 2: Risk list and definitions

STEEP Category	Risk	Definition
Economic	Economic Fragmentation	The breakdown of an economy into smaller, relatively independent and isolated components or segments, manifesting in the separation of markets, industries, or regions, leading to reduced integration and cohesion within the overall economic system.
Economic	Global Financial Crisis	Severe disruption in the international financial system characterized by widespread banking and financial sector distress, currency devaluations, and economic downturns affecting multiple countries or regions simultaneously.
Economic	Supply Chain Collapse	Collapse of availability of businesses, people and activities involved in the procurement, logistics, transformation and delivery of finished goods.
Economic	Sustained Global Economic Stagnation	Prolonged period of minimal or no growth in the worldwide economy, marked by sluggish or stagnant economic activity, high unemployment, limited expansion across multiple sectors, deepening inequalities and mounting pressures of indebtedness.
Economic	Widespread Debt Crisis	A significant number of entities, such as countries, regions, or sectors, facing a high level of financial distress due to an inability to meet their debt obligations. It can result from economic downturns, fiscal mismanagement, external shocks, or a combination of these factors.
Environmental	Inaction on Climate Change	Failure or reluctance of individuals, governments, or organizations to implement substantial measures or policies aimed at mitigating and adapting to the adverse impacts of climate change, such as rising temperatures, extreme weather events, and environmental degradation.
Environmental	Large-Scale Natural Hazard Risks	Potential for widespread damage, disruption, or loss caused by changing meteorological conditions as well as natural phenomena like earthquakes and volcanic activities.
Environmental	Large-Scale Pollution	Extensive and widespread contamination of air, water, or land, leading to significant demand for financial resources, human effort, and time to remediate. This includes forms of pollution such as ambient air pollution, chemical pollution, physical waste, or radioactive isotopes, as well as space waste and debris.
Environmental	Rapid Decline in Biodiversity	Swift and significant reduction in the variety and abundance of species within a specific ecosystem or across the planet, often resulting from human activities, habitat destruction, pollution, and other factors.
Environmental	Shortages of Natural Resources	Depletion of high-value natural resources like oil, gas, minerals and timber, as well as mismanagement and competition over diminishing renewable resources, such as land and water, aggravated by environmental degradation, population growth and climate change.
Environmental	Space-Based Event	Natural or technological occurrences originating in or affecting outer space (e.g., solar flares, geomagnetic storms, or asteroid impacts) that have a significant and potentially severe impact on Earth or its systems, causing substantial disruptions to satellite communications, power grids, or other critical infrastructure on Earth.
Political	Collapse of Multilateral Institutions	Weakening and degradation of organizations and their collective action to resolve problems that are bigger than their individual efforts could tackle (e.g., global challenges like climate change and health crises), despite being foundational pillars of the international system established in the post-WW2 era.
Political	Collapse of Rule of Law and Massive Violations of Human Rights	Breakdown in international legal regimes and widespread disregard for basic human rights.
Political	State Sovereignty Erosion	Breakdown or failure of a government or political system to fulfill its basic functions, such as maintaining law and order, providing essential services, or representing its citizens effectively.
Political	Geopolitical Tensions	Significant changes in the global political landscape, involving alterations in power dynamics, alliances, and strategic interests among nations.
Political	Large-Scale War	Conflict of significant magnitude involving widespread and substantial military engagements, potentially waged within a country or between nations or coalitions, with extensive geopolitical, economic, and societal consequences.
Political	Misinformation and Disinformation	False or misleading information, with misinformation being inaccuracies spread without harmful intent, and disinformation being intentionally false or deceptive information circulated with the aim of causing harm or manipulating perceptions.
Political	Weapons of Mass Destruction	Atomic explosive weapons, radioactive material weapons, lethal chemical and biological weapons, and any weapons developed in the future which may have characteristics comparable in destructive effect to those of the atomic bomb or other weapons mentioned above. (UN Office for Disarmament Affairs, UN Regional Centre for Peace and Disarmament in Asia and the Pacific)
Societal	Biorisks	The risk posed to human, animal, plant, or environmental health, by outbreaks of disease of natural, accidental, or deliberate origin.
Societal	Collapse of Social Cohesion	Heightened social discord, surge in violent criminal activities, victimization of minority groups, breaches of human rights, and, in the end, the eruption of violent confrontations.
Societal	Mass Movement of People	Large-scale movement of people driven by factors like economic pursuits, escaping poverty, violence, war, persecution, climate change, and natural disasters, encompassing both voluntary and forced movement.
Societal	New Pandemic	The global spread of a pathogen or variant that infects human populations with limited or no immunity through sustained and high transmissibility from person to person, overwhelming health systems with severe morbidity and high mortality.
Societal	Proliferation of Non-State Actors (incl. criminal and terrorist groups)	Widespread growth in the number, influence, and activities of entities that operate outside the control or governance of traditional nation-states, could include terrorist and criminal organizations exerting considerable influence in various sectors, beyond the conventional structures of national governments.
Societal	Rise in Inequalities	Rise in disparity in opportunity and access based on income, sex, age, disability, sexual orientation, race, class, ethnicity, religion, and capacity to use digital assets.
Technological	Breakdown in Cybersecurity	Widespread and systemic failures in safeguarding digital systems, infrastructure, networks, and data from unauthorized access, attacks, malicious use and exploitation.
Technological	Geoengineering Disasters	Large-scale manipulation of planetary processes to control and modify earth's climate or weather.
Technological	Negative Outcomes of AI and Frontier Technologies	Adverse effects, whether intentional or unintentional, resulting from progress in AI and related technological capabilities—such as generative AI— on societies and ecosystems. These impacts may include, but are not limited to, increasing inequality, bias, conflicts and misinformation issues.
Technological	Technology-Driven Power Concentration	The growing centralization and consolidation of influence, control, and authority facilitated by advancements in technology, as well as the control over resources, influence and power that can be accumulated in the hands of private companies.

ANNEX 2: GLOBAL RISK REPORT **SURVEY METHODOLOGY**

The global risk survey received responses from 83 UN Member State representatives, and 1,028 stakeholders across civil society organizations, businesses, and academia from all regions of the world.

"Global risk" was defined throughout the survey as an uncertain event or a condition that would have a significant negative impact on a large portion of humanity and the planet.

Stakeholder Groups

The survey targeted five main stakeholder groups that were chosen to capture diversity and expertise in risk perceptions.

Survey Implementation

The Global Risks Survey was conducted through an online survey platform, between February 2024 and May 2024. The survey comprised three main sections: Respondent Demographics, Global Risk Outlook and Perception, and Global Risk Preparedness.

Table 3: Stakeholder group definitions

Stakeholder	Definition
UN Member States	Government officials from the 193 UN member states
Civil Society Organizations (CSOs)	Non-governmental organizations accredited with consultative status with the Economic and Social Council (ECOSOC), including non-profit organizations and under-represented communities such as women and youth groups
Private Sector Organizations	Members of private or for-profit organizations recognized by the UN Global Compact
Risk Experts and Academia	Civil society actors or members of private organizations specializing in risks across different industries (e.g., banking, political risk) and academic affiliates of tertiary education institutions specializing in risk across different disciplines
United Nations	Employees at the United Nations and its affiliated bodies

Section 1: Respondent Demographics

This section of the survey asked respondents to provide their demographic details, used primarily to compare stakeholder groups and regional differences. All responses were kept anonymous, de-identified, and confidential. Questions in this section included:

- Nationality and country of residence or representation
- Domain(s) of expertise
- Type of organization (e.g., UN Member States, Private Sector Organizations, Civil Society Organizations, etc.)

Section 2: Global Risk Outlook and Perception

1) **Likelihood** asked respondents to rate how likely each of the 28 risks were to negatively impact a large portion of humanity by 2050. Respondents were provided with a Likert scale of 1 to 7 with the following anchors: (1) Extremely unlikely, (4) Neither likely nor unlikely, and (7) Extremely likely.

2) **Imminence** asked respondents when they believed that each of the 28 risks would have a significant negative impact on a large portion of humanity. Respondents were provided with the following options: (1) Currently occurring, (2) In 1-7 years, (3) In 8-15 years, (4) In 16-25 years, and (5) After 2050.

3) **Severity** asked respondents how severe the impacts of each of the 28 risks would be if the risk were to occur by 2050. Respondents were provided with a Likert scale of 1 to 7, with the following anchors: (1) No impact at all, and (7) Extremely severe impact.

4) **Risk Prioritization** asked respondents to pick and rank five risks in order of which they believed should receive highest priority for action by multilateral institutions.

5) **Risk Interconnections** presented 5 randomly-assigned risks from the total list of 28 risks to respondents and asked them to identify how each of those risks could be connected to other global risks. This same subset of risks would remain consistent for all lines of risk inquiry in Section 3. For each risk, respondents were asked to identify: (i) One other risk that is most likely to lead to or cause this risk, (ii) One other risk that would most likely worsen the impact of this risk, and (iii) One risk that is most likely to occur as a result of this risk.

Section 3: Global Risk Preparedness

1) **Risk Preparedness: Identification** asked respondents to rate the ability of multilateral institutions to identify the emergence of each of five randomly-assigned risks before it posed a significant threat using a Likert scale of 1 to 7, with the following anchors: (1) Not at all, and (7) Very able.

2) **Risk Preparedness: Reduction** asked respondents to rate the ability of multilateral institutions to reduce the likelihood of each of their five assigned risks occurring on a Likert scale of 1 to 7, where (1) indicates Not at all, and (7) Very able.

3) **Risk Preparedness: Mitigation** asked respondents to rate the ability of multilateral institutions to mitigate the negative impact of each of their five assigned risks and ensure timely recovery if the risk were to occur on a Likert scale of 1 to 7, where (1) indicates Not at all, and (7) Very able.

4) **Risk Governance: Actions** asked respondents to select up to two forms of stakeholder action that can best address each of their five assigned risks. Options included: Unilateral, bilateral and multilateral action by governments, action by civil society, private sector, individuals, and subnational governments.

5) **Risk Governance: Barriers** asked respondents to select up to two top barriers that impede the effective addressing of each of their five assigned risks. Options included: Inadequate data and information, Insufficient finance options, and Lack of political consensus.

Data Cleaning

A total of 1,786 responses to the GRS were received. From these, 1,111 responses were retained for analysis, while 675 were removed using the following data cleaning criteria:

1. Responses were removed if respondents did not give consent to proceed with the survey. 144 responses were deleted from this step.

2. Responses with less than 53% completion rate– past the respondent demographics section– were removed. A pairwise deletion rule (i.e., keeping the response even if the respondent did not finish all survey questions) was applied to keep the maximum amount of information from all survey responses. 511 responses were deleted from this step.

3. As each member state should provide only one valid response, 6 duplicate member-state responses were removed. When multiple responses were received from the same member state, the response with the highest completion rate was retained. Where duplicate responses had the same completion rate, the latest response was retained.

4. Responses with ambiguous stakeholder group classification were removed from the stakeholder comparisons as all responses needed to be classified into the five main stakeholder groups and six regions for their respective sub-group analyses. 14 responses were deleted from this step.

Respondent Profiles

The survey data encompassed a broad age distribution, ranging from individuals in their early 20s to those in their late 80s. The wide age range indicates that the survey captured perspectives across different life stages and experiences.

Gender representation in the survey was fairly balanced, with 658 respondents (59.2%) identifying as male, 445 respondents (40.1%) as female, and 8 respondents (0.7%) preferring not to specify.

The survey achieved fair geographical distribution, with 79 respondents from Central and Southern Asia (7.1%), 90 respondents from Eastern and South-Eastern Asia (8.1%), 514 respondents from Europe and Northern America (46.3%), 111 respondents from Latin America and the Caribbean (10.0%), 71 respondents from Northern Africa and Western Asia (6.4%), 27 respondents from Oceania (2.4%), and 219 respondents from Sub-Saharan Africa (19.7%).

The survey focused on five main groups of stakeholders, comprising the following breakdown: 83 official respondents from UN Member States (7.5%), 387 respondents (34.8%) from Civil Society Organizations, 106 respondents (9.5%) from the Private Sector, 436 respondents (39.2%) classified as Risk Experts, and 86 respondents (7.7%) from the UN. There were 13 respondents (1.2%) who did not fall exclusively within any of the predetermined stakeholder groups and were therefore classified as "Others."

Data Analysis

The responses from the GRS were analyzed using appropriate statistical methods tailored to the design of each survey question. The table below offers a summary of the treatment methods applied to each survey question, along with references to their corresponding sections in this sensemaking report. More comprehensive information on the measures employed can be found at the outset of each respective section within this report.

Table 4: Summary of data treatment by survey section

Survey Section	Question(s)	Analysis
Demographics	Primary nationality/country of residence or representation	Descriptive statistics Used as variable for sub-group heterogeneity analyses
	Organization type	Descriptive statistics Used as variable for sub-group heterogeneity analyses
Global Risk Outlook and Perception	Likelihood Severity	Statistical analysis of continuous variables with scale 1 to 7 Compounded variable for defining "risk importance"
	Imminence	Descriptive analysis Used as a categorical variable to indicate the imminence of a risk We also used group mean to compute an alternative continuous measure of imminence
	Risk Prioritization	Computation of sum of votes, with weights (top 1 = 5 points, top 2 = 4 points, ..., and top 5 = 1 point; any risk not selected will receive 0 point), as a proxy for risk prioritization
	Risk Interconnections	Network analysis Computation of risk closeness measures (e.g., degree centrality)
Global Risk Preparedness	Risk Preparedness: Identification Risk Preparedness: Reduction Risk Preparedness: Mitigation	Statistical analysis of continuous variables with scale 1 to 7 Average of the 3 preparedness measures was used to define "risk preparedness"
	Risk Governance: Barriers	Computation of sum of votes, statistical breakdown
	Risk Governance: Actions	Computation of sum of votes, statistical breakdown

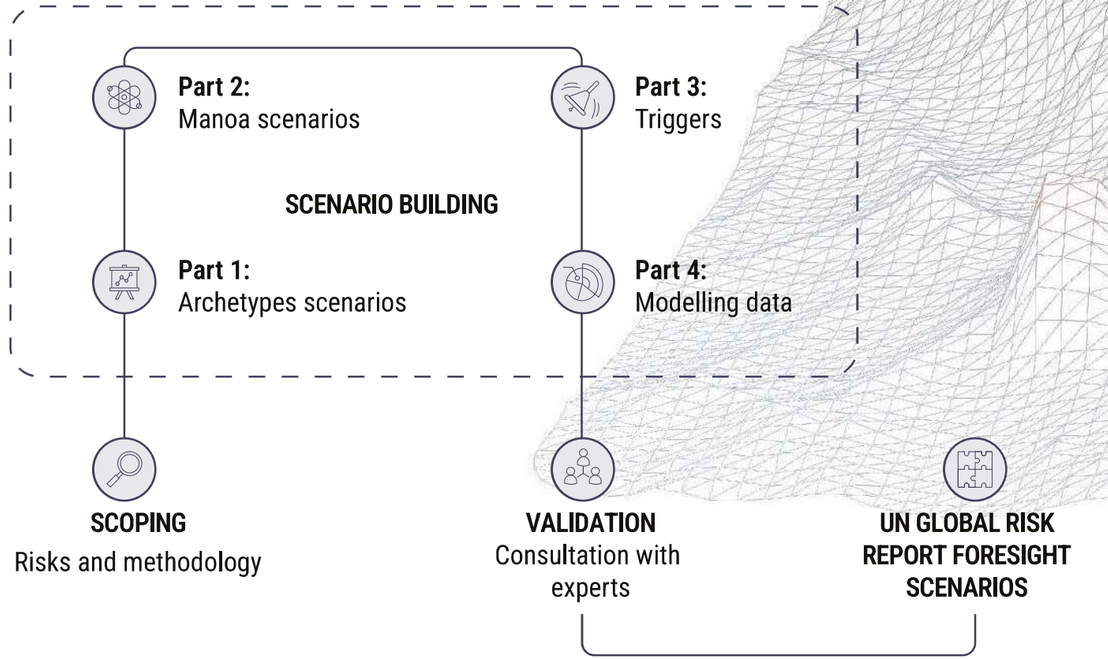
ANNEX 3: FORESIGHT SCENARIO BUILDING METHODOLOGY

The four foresight scenarios in the UN Global Risk Report aim to analyze the implications for the multilateral system, pro-vide a nuanced understanding of the Global Vulnerabilities (Chapter 3) with a focus on their interconnectedness, and support proactive planning, policy formulation, and decision-making. To meet these objectives, the UN Futures Lab/Global Hub developed the scenarios using a hybrid approach, in-tegrating elements from three established foresight meth-odologies (*Archetype Scenarios*[1]*, Manoa Scenarios*[2]*, and Triggers*) and modeling data from Denver University's In-ternational Futures Integrated framework (IFs)[3]. This approach ensures a comprehensive exploration of the key vulnera-bilities and assesses the preparedness of the multilateral system to manage them.

The scenarios are based on the top 10 risks by interconnectedness, as identified from the survey results (Figure 13). Using these risks, the **Archetype Scenarios** methodology frames four distinct future patterns for the evolution of the multilateral landscape:

- **Breakdown:** Fragmented joint action exacerbates the cascading effects of natural hazard risks.
- **Status Quo:** Uncoordinated joint action leads to uneven consequences after a global disinformation attack.
- **Progress:** Improved joint action mitigates the impacts of a new pandemic outbreak.
- **Breakthrough:** Strong joint action overcomes an acute global cybersecurity incident.

Figure 13: Scenarios Methodology



1 Dator, J. (2009). Alternative Futures at the Manoa School.
2 Schultz, W.L. (2003). Systemic Scenarios: Creating Synergy through Scenarios and Systems Thinking.
3 The IFs model is a large-scale, long-term, recursive dynamic tool that includes broad and integrated projections for 188 countries over long time horizons (B. B. Hughes 2019). The tool is open source and freely available (pardee.du.edu) and has been under development since the late 1970s. The tool has been published frequently in analysis by international organizations and governments (Hanna, Bohl, and Moyer (2021); B. Hughes et al. (2020); Meisel et al. (2021); Moyer et al. (2019); Moyer, Kabandula, et al. (2020); Verhagen et al. (2021-2022).

Building on the Archetype Scenarios, the **Manoa Scenarios** methodology delves deeper into the dynamics of risks interactions within each scenario. Each scenario prominently features a risk (e.g. natural hazards, mis- and disinformation, new pandemic and cybersecurity) from one of the vulnerability clusters. Recognizing that risks are interconnected and rarely occur in isolation, each scenario depicts additional risks and their cascading impacts based on the degree of interconnectedness as identified by the survey results. This analysis provides a comprehensive understanding of the complexity of risk dynamics and helps anticipate potential cascading effects, which are crucial for effective risk management and strategic planning.

Expanding on the above analysis, the scenarios incorporate the potential impact of disruptive risks using **triggers**. This aspect examines potential outlier events that could significantly alter the global risk landscape and for which the multilateral system may be least prepared. This analysis encourages proactive planning and decision-making to enhance resilience against unforeseen disruptions.

As a final step, modelling data from **Denver University's International Futures Integrated modelling framework**[5] was used to strengthen the robustness of the scenarios. The narrative of the scenarios was transformed into parameters introduced into modeling framework by making assumptions about which key variables are impacted as well as the magnitude of the effect. To do so, each narrative was synthesized and the core drivers were isolated and mapped to the IFs model. The results of this scenario building process were then presented to a **group of experts** for feedback and validation before the scenarios were finalized. Summarized, shorter versions of the scenarios, which do not include the results of the modeling data, are featured in the main body of the report.

By integrating these methodologies, the UN Global Risk Report provides a comprehensive, multidimensional exploration of future global risks and assesses the preparedness of the multilateral system to manage them.