

PS 3.1

**PLANET, POWER, AND PEOPLE: BUILDING JUST TRANSITIONS ACROSS
GENERATIONS**

| BACKGROUND

Humanity has thrived for over 10,000 years within a period of climatic stability and a resilient Earth system, which has allowed the development of advanced technologies and cultures. However, as the 2024 Planetary Health check Report shows, we are now entering a dangerous new era marked by increasing symptoms of Planet Boundaries transgressions, such as more frequent extreme weather events, wildfires, reduced plant productivity, and water scarcity. The report reveals that six out of nine PB processes have breached the safe PB levels, with all six showing trends of increasing pressure in all control variables, suggesting further boundary transgression in the near future.

These challenges are compounded by a still-growing global population that must navigate unprecedented difficulties. The relationship between population dynamics and planetary health is central to understanding global environmental change. On one hand, population growth, consumption patterns, and resource demands drive climate change through carbon emissions and ecological degradation. On the other, climate change directly impacts human health and well-being, disproportionately affecting vulnerable subgroups based on age, geography, and socio-economic status. A nuanced understanding of population size, composition, and distribution is critical for developing sustainable responses to the planetary crisis.

In 2023, the global population exceeded 8 billion, with projections estimating 9 billion by 2040 and 10 billion by 2060. While rapid population growth strains resources and increases exposure to climate risks, declining fertility rates in over 55 countries by 2050 present a contrasting challenge. Some environmentalists argue that population decline could mitigate climate pressures, yet high-income, low-fertility countries remain the largest contributors to greenhouse gas emissions.

Furthermore, ageing populations reshape consumption and emissions patterns. Energy use peaks between ages 35–55, declines, and then rises again after age 70 due to longer indoor stays and larger home sizes. This demographic shift may offset expected reductions in emissions from population decline, reinforcing the need for equitable, consumption-focused climate policies. In many LMICs, large youthful populations are driving rapid urbanization, economic development, and demand for food, water, and energy. These countries often struggle with inadequate infrastructure, leading to unsustainable resource extraction, deforestation, and pollution.

The stark disparity in carbon footprints—with individuals in the U.S. and Australia emitting nearly twice as much as those in China, despite China's total emissions being the highest—underscores the urgency of rethinking sustainability strategies beyond population growth control.

The intersection of climate change, migration, and global health is an escalating crisis, as climate-induced environmental changes force large-scale displacement. Climate migrants, displaced by rising sea levels, extreme weather, and droughts, lack formal recognition under international law, leaving them vulnerable to inadequate protection and resources. The WHO Global Research Agenda identifies the health of displaced populations in climate contexts as an urgent yet under-researched issue. Climate migration exacerbates disease burdens, introduces novel health risks, and disrupts health systems, affecting both climate migrants and broader migrant groups. Addressing this crisis requires legal recognition, healthcare access, and climate resilience strategies.

Gender dynamics further complicate the planetary health and geopolitical landscape. Climate change and environmental degradation disproportionately impact women and girls due to entrenched gender inequalities, including limited access to healthcare, economic resources, and decision-making power. For instance, UN Women estimates that by 2050, up to 158 million additional women and girls could be pushed into poverty due to climate-related shocks. In crisis contexts, women often bear the brunt of caregiving responsibilities, face increased exposure to waterborne and vector-borne diseases, and are more likely to experience food insecurity. Studies have also shown that gender-based violence and maternal health risks increase in the aftermath of climate disasters and displacement. Addressing these disparities requires integrating gender-responsive approaches into climate adaptation, health governance, and peacebuilding strategies to ensure equitable outcomes.

Young people are not only disproportionately affected by planetary crises—they are central to shaping solutions. Youth-led movements have driven global climate awareness and catalyzed political pressure for urgent action. According to the World Economic Forum, youth participation in national climate action plans and innovation platforms is growing rapidly, particularly in low- and middle-income countries. Young people are contributing to both policy and practice, developing grassroots initiatives, digital tools, and climate resilience strategies. Empowering youth through education, leadership opportunities, and co-design mechanisms is essential to bridging generational divides, promoting intergenerational justice, and accelerating transitions toward sustainable, inclusive, and climate-resilient societies.

| OBJECTIVES

This PS3.1 explores the complex interplay of geopolitical transitions, demographic shifts, and planetary health threats, focusing on how these dynamics reshape governance systems, population resilience, and global cooperation. In an era marked by polycrisis, the session seeks to identify actionable strategies and inclusive governance mechanisms that foster health equity, sustainability, and intergenerational justice. Some key questions include:

How does planetary health (climate change, energy consumption, resource depletion) impact global migration, security, and power structures?

- What governance failures/successes are accelerating/addressing climate-induced displacement, food and water crises, and migration conflicts?
- How do planetary health risks (heatwaves, water shortages, disease outbreaks) contribute to geopolitical tensions and border conflicts?

What governance models and policy responses are needed to manage the intersection of population transitions, geopolitics, and planetary health crises?

- How can regional and international bodies (e.g., ASEAN, EU, UN...) improve cooperation on planetary health and migration crises?
- What policies are needed to regulate emerging technologies, protect climate migrants, and prevent political destabilization from demographic shifts?

How do gender disparities in global governance, labor markets, and demographic transitions influence geopolitics, migration, and planetary health?

- How do gender disparities in economic participation and political power influence climate adaptation, health system resilience, and migration policies?
- What strategies are needed to ensure gender-responsive governance that integrates planetary health, economic resilience, and demographic transitions?



Moderator

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Dr Omnia El Omrani is the Vice-Chair of the Global Climate and Health Alliance and an Egyptian medical doctor. She is a Commissioner at the WHO Pan-European Commission on Climate and Health. She serves as the co-lead of the Equity Group of the Lancet Commission on Prevention of Viral Spillover. She also serves on two other Lancet Commissions on Sustainable Healthcare and Global Governance on Health. She was the first official Youth Envoy to the Egyptian Minister of Foreign Affairs and COP27 President and was then appointed as the COP28 Health Envoy. She completed a Master of Public Policy at the University of Oxford. She was selected as Apolitical's 50 Gender Equality Gamechangers in 2024 and Fast Company ME recognized her as one of the 35 Most Creative People in Business in 2023. She was awarded the 2023 Women of the Future, 50 Rising Stars in ESG.

She is serving as a member of the TED Countdown Vision Council and the Collective Minds Council. She was a member of the first Youth Sounding Board of the European Union DG-INTPA, an associate at Women Leaders for Planetary Health, and a member of the UNICEF-Az Youth Leaders Program and New York Times Generation Climate Cohort. She has more than 8 years of experience working on climate change and health, has published 32 research papers and has delivered over 120 hours of climate training in 15 countries.