INTRODUCTION

Answering the question, “What’s going on in development?,” isn’t easy. With exhaustive amounts of data and analysis at our fingertips, the best-informed of us can find it hard to choose what to read, remember and reference.

This report aims to help UNDP colleagues orient themselves in a constantly changing landscape by providing an overview of the issues that should be on everyone’s radar in 2024. Among lots of trends reports out there, this one is written for UNDP. It is not intended to be all-encompassing or definitive, but rather to alert us to what’s worth watching across the landscape of development.

Each chapter describes a current global theme and why it matters for development. In addition to key trends, “what to watch” lists emerging issues worth keeping an eye on because they look likely to become more prominent or serious. “Still uncertain...” points to signals of change whose direction and meaning are not yet clear.
METHODOLOGY

The Strategy & Futures Team ran ten workshops in late 2023 with UNDP’s Communities of Practice. Thematic experts presented the top trends in their area, which over 500 participants then compared with signals of change emerging from UNDP’s Future Trends & Signals System and their own experience. This helped reveal the nuances and gaps in the “known” trends, showing us what to watch for.
13 THEMES IN THE LANDSCAPE OF DEVELOPMENT

1. MULTILATERALISM IN FLUX
2. POLYCRISIS: THE ULTIMATE RESILIENCE TEST
3. THE TRUST DEFICIT
4. EQUALITY OVERDUE
5. POVERTY: A MOVING TARGET
6. THE DEBT DILEMMA
7. SUSTAINABLE FINANCE: FROM ACCOUNTING TO ACCOUNTABILITY
8. THE NEXT DIGITAL FRONTIER: ETHICS
9. MIND THE TECH GAP
10. HEALTH IN A CHANGING CLIMATE
11. MAKING THE GREEN TRANSITION
12. THE TRIPLE PLANETARY CRISIS
13. THE TAPESTRY OF MIGRATION
DID YOU KNOW....

• There were more conflicts worldwide in 2023 than in any single year since World War II
• 70+ elections in 2024 give over half the world’s population a chance to vote
• Not a single indicator for SDG5, gender equality, has been met - or even “almost” met. A quarter of people worldwide believe it is justifiable for a man to beat his wife
• 2023 investments in renewable energy outpaced those in fossil fuels for the first time, reaching $2.8 trillion
• Finance to nature-based solutions increased from $150 bn (2021) to $154 bn (2022) – though still less than half the $384 bn needed
• AI-powered misinformation is the world’s biggest short-term threat, according to the World Economic Forum
• Less than a third (27%) of people in low-income countries used the internet in 2023
• The cloud has a bigger carbon footprint than the airline industry
• It’s anyone’s guess: estimates of ‘climate migrants’ by 2050 range from 25 million to 1 billion
• 2023 is set to be the warmest year on record - and El Niño will likely make 2024 even hotter
• 50% of the world’s population is under 30. The average age of leaders is 62
• 2023 saw a notable increase in protests across the world, with new protests in 83 countries
INTERSECTING TRENDS

1. Conflicts proliferating and intensifying
2. Rising inequality fueling discontent
3. AI fueling misinformation
4. Widening SDG investment gap in developing countries
5. Calls for a fairer debt system
6. Cutting-edge tech as strategic assets
7. Debt servicing crowding out health and education
8. Sustainable finance market growing
9. Pressure on ESG - from all sides
10. Fossil fuel subsidies persist
11. Debt hampering the green transition
12. Accelerating biodiversity loss & ecosystem degradation
13. New records for annual high temperatures
14. Increasing risk of zoonotic diseases
15. Growing health costs of environmental pollution
16. Growing digital health solutions
17. Digital access and capacity in LICs far below average
18. Democratic backsliding erodes gender equality
19. Increasing polarisation
20. Declining trust
21. Increasing number of migrants
22. Increasing renewable energy deployment
23. Weather-related events driving migration
24. Apps and algorithms influencing migration
25. Developing countries asserting themselves
26. Geopolitical tensions beginning to weaken global trade
27. Nature-positive commitments increasing
28. Care work falling mostly to women
29. Gender inequality persists
30. Momentum increasing around Digital Public Infrastructure
31. Debt distress burdening the poorest most
32. Democratic backsliding and shrinking civic space
MULTILATERALISM IN FLUX

Conflicts are increasing and splintering positions among states. The multilateral chessboard is becoming more fluid, as nations align less readily with familiar political blocs. Countries of the Global South are voicing their disillusion with the multilateral system and developing their own alliances and positions. Beyond conflict, geopolitical tensions are making themselves felt in global trade patterns and volumes, increasing the risks of a fragmenting global order. Yet what nations say is not necessarily what they do; economic ties persist despite political differences.

1. Conflicts are **proliferating** — from Sudan to Ukraine to Gaza. 2023 witnessed a **three-decade high in the number of conflicts worldwide** and the **highest number of conflicts** since World War II. Of the 163 countries covered in the Global Peace Index (GPI), 95 recorded deteriorations since 2008. 2022 was the deadliest year for armed conflict in the history of the GPI.

2. **Geopolitical trends**, including declining interdependence between China and the United States (US), are **affecting** global trade. While the global economy remains highly integrated (every region **relies on trade with others** for more than 25% of at least one important good), global trade is set to **contract by 5%** in 2023. Trade in goods is expected to decline by $2 trillion (vs. trade in services increasing by $500 billion). Since 2019 the number of new trade barriers introduced each year has **almost tripled**. Supply chains are being lengthened or disrupted (though some argue that “friend-shoring” - moving supply chains to friendly countries - so far **has changed supply chains less** than the rhetoric might suggest). Other forms of **fragmentation**—like technological decoupling, disrupted capital flows and migration restrictions—**amplify** the costs of trade restrictions. Emerging markets and low-income countries (LICs) are likely most at risk from economic fragmentation, including from the **loss of knowledge transfers**. The **outlook for 2024** is highly uncertain.

3. In a more multipolar world, countries of the Global South **pick and choose their allies**, **resisting pressure to align consistently** with one or another major power. Unlike the non-aligned movement of the last century, increasingly countries are **hedging** their bets, adopting a **tactical approach** to multilateral issues, including even to polarizing issues like war or tech. Some 40 countries (50% of world population) **abstained or voted against** condemning Russia for its invasion of Ukraine. While over **60 countries have signed agreements** on China’s Digital Silk Road, many are trying to **remain technologically agnostic** and **avoid taking sides**.

4. The countries of the Global South are **building new alliances**, from the BRICS expansion to Egypt, Iran, Ethiopia, Saudi Arabia and the UAE **from January 2024** to an expanded G20 (with the **African Union** now a permanent member). According to Bloomberg, the BRICS+ share of global GDP in purchasing power parity terms is 36%, **with potential to rise to 45% by 2040**, double the G7’s.

5. A mild decline in **global cooperation** (down 2%) since 2020 may speak to scepticism
about globalization, which some countries see as a driver of inequality, or consider greater independence a more secure route to prosperity. If this scepticism leads to more fragmented nationalist or protectionist policies, that could jeopardise the gains to be had from a renewed drive towards more inclusive integration.

**TRENDS**

- Conflicts proliferating and intensifying
- Geopolitical tensions beginning to weaken global trade and economic integration
- Developing countries asserting themselves, with “a la carte” coalitions and ad hoc alignment

**WHAT TO WATCH**

- The Summit of the Future, September 2024: an opportunity to consider reforms to the institutions of global governance and re-build trust
- How ad hoc coalitions proliferate and strengthen, given lack of progress towards reform of multilateral institutions
- How far commitments to the Global South — e.g., COP 28 loss & damage fund — are fulfilled, and the impact on Global South trust

**STILL UNCERTAIN...**

- How climate, geoengineering, AI alignment and other “borderless” wicked problems may spark disputes — or prompt new multilateral efforts to address them?
- Splintering of positions makes it harder to predict which way countries will lean in crises
6. Conflicts, surging inflation, pandemics, energy security, disasters, climate and environmental degradation are intersecting and compounding one another: a “polycrisis” of interconnected events.

7. The world became less peaceful for the 13th time in the last 15 years. Conflict intensified, with deaths and conflict events increasing by 14% and 28% respectively (2022–2023), even before the Israel-Gaza crisis. One analysis found that political risk – a combination of conflict intensity, civil unrest and government stability – reached a 5-year high in early 2023. 43 countries have seen a significant increase in the risk to human security since 2020.

8. Disasters have multiplied five-fold in the last 50 years, and the trend is accelerating, driven by a growing hazard exposure of people and assets, as well as by climate change and its impacts. The risk of extreme weather events was rated by WEF as the top risk 10 years from now. Environmental degradation (affecting 40% of the earth, and 95% by 2050 at current rates) makes hazards more intense and more frequent, and people more vulnerable – seriously weakening our resilience.

9. Increasing loneliness and disconnection are reducing civic engagement, weakening social cohesion and making people more vulnerable to polarization: one of the world’s top 10 short-term risks (WEF). A “lack of faith in societal institutions,” driven by economic pessimism and distrust, is driving people apart. Only business and civil society organizations are viewed as “competent and ethical.”

10. Growing wealth and income inequalities are another driver of social discontent and more polarised societies. Although global inequality (across countries) has broadly declined since the 1990’s (with some exceptions, e.g., sub-Saharan Africa), inequality within countries has risen. Over the past four decades, income inequality has risen within most advanced economies and major emerging economies (equal to two-thirds of the world’s population and 85% of global GDP).

11. Threats to stability may emerge where we least expect them, for example jellyfish proliferating due to climate change, forcing nuclear power station shutdowns – showing the unpredictable connections between apparently unrelated risks.
THE LANDSCAPE OF DEVELOPMENT

TRENDS

• Conflicts proliferating and intensifying
• Declining institutional and social trust, breeding polarization and fragility
• Rising income and wealth inequality – and perceptions of injustice – fueling discontent

WHAT TO WATCH

• Powerful El Niño pattern likely to hit hard in 2024, bringing extreme weather events
• The trade-off between the benefits of enforcing rules to protect the commons (e.g., Covid lockdowns) and the negative impacts on behaviour and health of restricting people’s freedom
• Positive “tipping points” in energy, transport and food could save millions of lives by making the desired change the best option

STILL UNCERTAIN...

• Tech breakthroughs to manage risk, like big data, public participation (e.g., crowd-sourced risk reporting), advanced analytics (e.g., for scenario planning and stress-testing). Will algorithms get better at accurately predicting risk?
• Risks of “bio-terrorism” as the spread of AI and genetic engineering allow even non-experts to threaten national security
12. The V-Dem Institute judges that the level of democracy enjoyed by the average global citizen in 2022 was down to 1986 levels, with drastic deterioration in the last 10 years in freedom of expression, quality of elections, government censorship of the media and repression of civil society. There have been seven coups d'état in Africa since 2020.

13. According to the Edelman Trust Barometer, people see government as far less competent and ethical than business or non-governmental organisations. They believe that over 60% of leaders in government, business and the media try to mislead people by saying things they know are false. These levels of distrust are driving polarisation: seen as the 3rd greatest short-term global risk.

14. A la carte worldviews? 81% of people interviewed by the last World Values Survey said living in a democratic country mattered a lot to them. Yet 52% agreed a strong leader unbound to legislatures or elections was a good thing. Dissatisfaction with the actual functioning of democracy is growing. A small but growing number of Americans say use of force is justified to achieve political ends.

15. Public reaction ranges from activism to apathy. Even as more countries are cracking down on freedom of speech, and over 400 human rights defenders and 96 journalists were murdered in 2022 and 2023 respectively, new protests erupted in 83 countries in 2023. Yet other people decide to disengage altogether. Wider, socially coordinated inaction is taking on new forms to express discontent at scale, particularly among younger generations.
TRENDS

- Democratic backsliding and shrinking civic space
- Decreasing trust
- Increasing polarisation

WHAT TO WATCH

- Over 70 elections this year will give over half the world the chance to vote. Generative AI-powered threats like more convincing deepfakes may spread disinformation and intensify polarization – threatening to undermine the legitimacy of newly elected governments and provoke civil unrest
- Innovative activism and online groups spilling over into real life
- New leadership roles, like Head of Uncertainty or Chief Heat Officer
- Debate and crowdsourcing of ideas about new forms of the social contract

STILL UNCERTAIN...

- “DIY social contracts” where citizens take collective action to provide their own schooling, security, healthcare, water or energy
- The future of democracy, when young people are voting less, dissatisfied with democracy and their leaders?
EQUALITY OVERDUE

The world is still very far from equal for women and men, and democratic backsliding is making progress even harder. Major hurdles to gender equality include lack of equality in law, persistent income gaps and gender-based violence. Social norms and cultural attitudes to gender equality are hard to shift, and the digital world is amplifying misogynistic voices.

16. **Not a single indicator for SDG5, gender equality, has been met** - or even “almost” met. Women globally are empowered to achieve only 60% of their full potential. By 2030, over 340 million women and girls could still be living in extreme poverty (8% of all women, a small decrease on the current 10%); 1 in 4 will be food-insecure. Where sex-disaggregated data are available, women aged 25 to 34 are 1.2 times as likely to live in poverty as men.

17. These inequalities are rooted in gender social norms. **Nearly 90% of men and women hold fundamental biases against women.** The decline in democracy for the past 17 years has gone with a gender backlash, constraining women’s rights and rolling back policies towards gender equality. In only 14 countries do **women have equal legal rights to men.** A quarter of people worldwide believe it is justifiable for a man to beat his wife.

18. **Labour force participation** was around 47% for women and 72% for men in 2022. **Women earned 51 cents to every man’s dollar** (2019). Average GDP per capita would be **almost 20% higher** if gender employment gaps were closed.

19. **16.4 billion hours** are spent on unpaid care work every day, mostly by women (three times more than men). Ageing societies will increase that burden. In LICs, women in rural areas spent up to 14 hours a day providing care, unpaid.

20. With some glaring exceptions like Afghanistan, **gender gaps have been narrowing in education;** worldwide, female enrolment in tertiary education **tripled** from 1995 to 2018. Still, 32% of young women aged 15-24 were not in education, employment or training in 2022, compared to 15% of young men.

21. Women in **conflict and fragile settings** face particular challenges: increased maternal mortality and morbidity, lack of healthcare, girls out of school. Women’s participation in public administration in fragile and conflict-affected countries averages just 23%, less than half the global average. Only 16% of conflict negotiators in 2022 were women. Only 0.3% of bilateral aid ($148 million) supported women’s rights organizations in fragile settings in 2021.

22. Women remain **underrepresented in politics;** the share of women as heads of state or government has remained around 10% since 1995 and only 26% of parliamen-tarians are women (though that is up from 11% in 1995, and increases to 35% in local government in 141 countries).
23. In 2021 a woman was killed every 11 minutes by a relative. And new forms of violence against women are emerging online, fueled by digital tools like deepfakes and by misogynistic influencers. Online violence forces women out of digital spaces. Underrepresentation of women in tech is one reason why generative AI tools are perpetuating harmful gender stereotypes.

TRENDS

- Economic gender gaps persist
- A vicious circle of eroding democracy and backlash against gender equality
- Care work falling mostly to women

WHAT TO WATCH

- How women’s rights feature in 2024’s electoral campaigns in 70+ countries – and how promises translate to action
- Increasing risks to women in conflict and fragile environments, from rape as a weapon of war to lack of medical care to being sidelined in peace negotiations
- Policies that constrain women’s choices (e.g., encouraging higher birth rates)

STILL UNCERTAIN...

- The impact of AI – both smarter and more accessible – on human relationships. Will growing options for human-AI intimacy expand women’s choices or erode human connection?
- Whether women are empowered or excluded by increasing digitalization
POVERTY: A MOVING TARGET

Poverty is changing shape. Recovery from the shocks of Covid has been uneven; the world is still not on track to SDG1 “No poverty”. At current rates, only one-third of countries will have halved national poverty by 2030. New deprivations - like climate vulnerability, clean energy access and digital access - matter more and more to people’s chances to thrive. What it means to be poor is constantly changing.

24. **Extreme poverty declined** from 38% to 9% between 1990 and 2018. 25 countries successfully **halved their global Multidimensional Poverty Index (MPI)** values within 15 years, showing that **rapid progress is attainable**.

25. But even today, 1.1 billion out of 6.1 billion people **live in acute multidimensional poverty** across 110 countries. 5 out of 6 live in Sub-Saharan Africa (534 million) and South Asia (389 million). **84% live in rural areas**; half are children. By 2030, fragile states will make up 5 of the 10 countries with the highest numbers of extreme poor.

26. The 2020-2023 polycrisis of Covid, the war in Ukraine and the cost of living crisis saw **165 million people fall into poverty**, while **debt servicing crowded out** social protection, health and education spending. UNDP called for a debt-poverty pause until the multilateral system could address debt restructuring. The IMF forecasts **7.8% inflation** this year for emerging market and developing economies.

27. **Income inequality** between countries has declined since the 1990’s. Yet within countries (which is what people notice most) it **has risen for 71%** of the world’s population.

28. The changing picture of global risks and opportunities is **changing what it means to be poor**. Some **4.5 billion people are at high risk** of an **extreme weather event** (flood, cyclone, drought or heatwave). Half of them are poor (living on less than $6.85/day), making them highly vulnerable to extreme weather’s impacts. Digital tech is crucial to development. Yet one third of the world **has no internet access**, including 39% of people in Asia and 60% in Africa. In 2021 internet users in rural areas were half the number in urban areas, with women 16% less likely than men to use mobile internet.

29. In 2019, **women earned 51 cents for every dollar a man earned**. Women spend over **250 minutes** every day on unpaid care work (triple the time spent by men) and up to **18 hours a week** collecting **wood and fuel**. Most of the 3.2 million deaths from indoor pollution are women. If women participated equally in the economy, that could **add $28 trillion** to world GDP in 2025 – a 26% increase, equal to the US and China’s economies combined.
WHAT TO WATCH

• Demographic change means opportunities for some (e.g., Africa’s youth bulge), but ageing populations will increase the pressure on social systems and the care economy.
• Our understanding of poverty already goes beyond $ per day to include deprivations in health, education and living standards. Will we start to measure vulnerability to digital and data poverty (e.g., affordability, skills, privacy) – even mental and spiritual health?
• Digital public infrastructure (DPI) is increasingly the centerpiece of poverty eradication strategies, with huge added value potential, including digital IDs, e-services and financial tools for the “unbanked.” But ethical foundations are essential; predatory financial inclusion, for example, can increase vulnerability to debt.
• The impact of rapid urbanization; over half the world’s people live in urban areas (projected to be 70% by 2050). 1.1 billion urban residents live in slums or slum-like conditions, with 2 billion more expected in the next 30 years.

TRENDS

• Income poverty is expected to decline in 2023 in 3 out of 4 low- and middle income countries (LMICs).
• Debt distress is burdening the poorest most by reducing public budgets for social spending.
• Gender inequality persists, further holding back progress.

STILL UNCERTAIN...

• Potential for creative economies (drawing on human creativity, intellectual property and technology) to provide developing countries opportunities to leapfrog innovation and reduce poverty.
• Poverty reduction strategies will increasingly need to consider the rights of non-human entities (e.g., rivers, oceans, space) and future generations.
THE DEBT DILEMMA

Developing countries’ debt may have peaked but it's still a huge burden. Many countries face the unenviable choice of servicing their debt or providing public services and investing in their future. Current relief measures don’t match the scale of the problem; structural changes in the global financial system that recognize the linkage between debt and development – including resilience to climate change - are ultimately required.

30. **Global public debt peaked** at $92 trillion in 2022 – a five-fold increase since 2000. The 75 countries eligible to borrow from the World Bank’s International Development Association – which supports the poorest countries – have more than doubled their external debt since 2012, now at a record $1.1 trillion (an increase of 134% far exceeding the 53% increase in their gross national income). 52 countries – 40% of the developing world – are in **serious debt trouble**, including 28 of the 50 most climate-vulnerable.

31. This burden **hits the poorest hardest**. Rather than default, some countries are having to **trade off investments** in health and education, to the detriment of current and future generations. Some 3.3 billion people now live in countries where debt interest payments exceed spending on health or education. 165 million people fell into poverty between 2020 and 2023 as debt servicing crowded out social protection, health and education spending.

32. UNDP estimates that **up to $148 billion** of savings could be unlocked for the 52 countries in debt distress by restructuring existing debt and expanding access to affordable finance. **UNDP has called for a debt-poverty pause** until the multilateral system addresses debt restructuring.

33. Debt and the climate crisis are linked. **70% of public climate finance takes the form of debt.** Ironically, poor countries’ climate vulnerability raises their cost of borrowing, creating a vicious circle as high debt repayments crowd out investment in climate adaptation, resilience or a just transition. Kenya, Colombia and France have **commissioned an investigation** into the impact of ballooning debt on countries’ ability to deal with climate change.

34. The **Bridgetown Agenda 2.0** proposes to **reform the global financial system** to better support developing countries facing escalating climate threats. 20 nations most at risk from climate change are considering halting $685 billion repayments to the IMF and World Bank and spending instead on climate change mitigation: their own form of "climate reparations". In the biggest debt for nature swap yet, **Ecuador** swapped $1.6 billion debt for a $656m loan plus a commitment to spend $323m on marine conservation in the Galapagos over 18 years.

35. **China wrote off $3.4 billion of debt** between 2000 and 2019, mostly interest-free loans to African countries, though only a fraction of Chinese loans in Africa.
**TRENDS**

- Debt servicing is squeezing investments in health and education and driving people into poverty
- Increasing debt is hampering the green transition
- Calls for a fairer debt system are echoing beyond the developing world

**WHAT TO WATCH**

- Reaction to proposals for a fairer multilateral lending system: the UN Secretary-General’s recommendations to reform the international financial architecture, the Bridgetown Agenda and the AU’s proposal for a new African Credit Rating Agency
- The effects of enforced austerity on development outcomes in LMICs

**STILL UNCERTAIN...**

- Will domestic debt policies (e.g., student debt forgiveness in the US) affect voters’ attitudes towards international debt write-offs, a debt-poverty pause or multilateral system restructuring?
- Can debt swaps for nature— and other creative solutions to unsustainable debt - reach serious scale?
SUSTAINABLE FINANCE: FROM ACCOUNTING TO ACCOUNTABILITY

Investment in the SDGs is increasing, but it still isn’t enough. Developing countries’ investment needs are growing faster than they can attract funding. But we may be on the verge of change; the political “noise” around ESG shouldn’t overshadow the global momentum towards real accountability, in the form of stronger standards from the ISSB and the EU and stricter penalties for greenwashing. Still unknown, though, is how emerging markets will cope with stricter standards – and how geopolitics will affect what counts as “green” and sustainable finance.

36. **International investment in the SDGs increased** in 2022, but developing countries’ annual **SDG investment gap has widened**, from $2.5 trillion in 2015 to $4 trillion. Funding is available - the **sustainable finance market grew 10% to $5.8 trillion** in 2022; the Global Impact Investing Network expects the **impact investment market** ($1.1 trillion) to expand rapidly - but **not enough is directed to developing countries**.

37. **Green bonds** have raised $2.5 trillion globally. Hong Kong launched a **HK$800 million Tokenised Green Bond** in 2023. Since 2016, **19 emerging market governments** from Chile to Uzbekistan have issued green, social and sustainability bonds to fund climate action, promote a just transition from fossil fuels and deliver their SDGs (but this is only 2% of the global total of such bonds).

38. **The ESG backlash continues**, particularly in the US, where over **one-third of states passed anti-ESG laws in 2023** (though the vast majority of such bills failed to pass). Conversely, advocates dismayed at greenwashing want to “**lose the term**, double down on the objective.” The US Securities & Exchange Commission **adopted** a new, more stringent labelling rule. DWS, Deutsche Bank’s investment arm, paid **$19 million** to settle greenwashing allegations. **BlackRock** added “ESG matters” to the **list of risks** the firm faces. **Shell is abandoning its plan** to invest $100 million annually in carbon offsets. The decision follows other large corporations, like Nestle and Gucci, as the Carbon Trust discontinued its “carbon neutral” labelling scheme because it may have misled consumers.

39. Following the launch of the International Sustainability Standards Board’s (ISSB) disclosure standards and the **EU’s Corporate Sustainability Reporting Directive** in 2023, many jurisdictions **plan to implement ISSB-aligned reporting rules** this year. These **more stringent measurement and reporting standards** will impact companies in developing countries, too - who may be less prepared to meet them. **New climate bonds standards** will also enable companies aligned with 1.5-degree pathways to be certified.

40. One **impact investment report** found 19% of investors surveyed were using the **SDG Impact Standards** as their framework to guide impact strategy. The SDGs in general are getting more traction, too, with 75% of investors tracking their investments using the SDGs in 2022, up from 64% in 2017.
TRENDS

• Widening SDG investment gap in developing countries
• Sustainable finance market growing
• Pressure on ESG – from all sides

WHAT TO WATCH

• Governments intensify dialogue towards a potential UN Framework Convention on International Tax Cooperation
• Blockchain and token-backed development bonds promise transparency and verification
• Deloitte predicts consumer purchases of carbon offsets will become pervasive and grow to $100 billion in developed economies by 2030. Personal and corporate carbon calculators are growing more popular
• Are companies in emerging markets ready to meet more stringent measuring and reporting standards?

STILL UNCERTAIN...

• The impact of the proposed reforms of international financing architecture
• If ESG is not fit for purpose, what might replace it?
THE NEXT DIGITAL FRONTIER: ETHICS

Exponential advances in digital tech, including AI, offer huge opportunities for development. Digital Public Infrastructure has the potential to benefit whole societies and accelerate the SDGs. But realizing this potential demands rights-based, inclusive approaches to digital governance. Otherwise, tech will exacerbate inequalities instead of reducing them, as countries and individuals with digital capabilities race ahead, leaving the rest behind.

41. **67% of the world was online** in 2023 – up 4.7% on 2022. But huge numbers remain offline in the developing world; only **27% of people in LICs used the internet** in 2023 (compared with 93% in high-income countries). Some two-thirds of people in the Arab States and Asia-Pacific use the internet, in line with the global average, while Africa’s average is just 37%. While gender parity is improving, **women’s mobile internet use in LMICs still lags 19%** behind men’s. Of the 900 million women not yet connected, nearly two-thirds are in South Asia and Sub-Saharan Africa.

42. **AI will stay in the headlines.** 2,778 AI researchers surveyed rated the chance of AI outperforming humans in every task at 50% by 2047 – 13 years sooner than last year’s estimate. **Demand for AI skills rose** in all job sectors as applications like ChatGPT made it accessible to the non-expert. 54% of the world are excited about AI, and the Global South are especially optimistic. McKinsey estimates that generative AI (GenAI) – that is, capable of generating novel text, audio, images and video - could deliver a **$480 billion productivity bonus** to the public sector (including healthcare and education) worldwide.

43. As the power and scope of AI expand, risks grow too: of unequal access, **bias** and **prejudice**, malign applications, environmental impacts. The 2024 WEF Global Risk Report considers **AI-powered misinformation** the world’s biggest short-term threat. Over half the AI researchers surveyed considered “substantial” or “extreme” **concern was warranted** over AI scenarios like spread of false information, authoritarian population control and worsened inequality. **52% of the world are anxious** about AI (up sharply on 2022). **AI misuse** is growing.

44. In emerging markets and LICs, **40% and 26% of jobs** respectively are “exposed” to AI (would either benefit from AI application, or be replaced by it). **AI will likely worsen inequality** within and between countries, as those with the skills to use it pull ahead of those who cannot.

45. **While 37 AI-related laws** were passed in 2022, and references to AI in parliamentary records increased 6.5 times since 2016, **governance isn’t keeping up** with the pace of change. Concerns include consumer demand for **data privacy** (worldwide **data breaches tripled** between 2013 and 2021; **two-thirds of US consumers surveyed** worried about being hacked or tracked); and the **environmental impact** of digitalization. With data traffic **expanded 25-fold** since 2010,
devices, data centers and ICT networks account for 6% to 12% of global energy use. The cloud has a bigger carbon footprint than the airline industry. Generating an image with GenAI tools requires the same amount of power as fully charging your smartphone.

46. The UN Global Digital Compact (at the Summit of the Future, September 2024) will take up many of these issues. Meanwhile, there is the US President’s Executive Order on secure and trustworthy AI; the 2023 Bletchley Declaration by 29+ countries promising to collaborate on safe, inclusive AI; and imminent EU regulation.

47. Momentum around digital public infrastructure (DPI) is growing. DPI can enable digital transformation and help deliver stronger public services for all, through society-wide capabilities like digital cash transfers or e-health. But DPI isn’t just a matter of getting the right tech in place; it’s about governance, too. To see its maximum benefit across the SDGs and across societies, DPI approaches must be rights-based and inclusive.

TRENDS

- **AI fueling misinformation**
- **Momentum increasing around Digital Public Infrastructure**
- **Digital access and capacity in LICs remain far below global averages**

WHAT TO WATCH

- **AI-powered misinformation**, with elections in 70+ countries in 2024
- **Data and skills asymmetry** is likely to deepen, exacerbating the digital divide
- **Personalized AI** for development, like local climate predictions for farmers; personalized learning platforms for stronger digital education; adaptive design for those with special needs
- **Governance of AI**: will we see a patchwork of national regulations or a more coherent multilateral approach?

STILL UNCERTAIN...

- Replacing human connections with synthetic AI relationships could break nuclear familial bonds and weaken communities
MIND THE TECH GAP

Global investment in research and development is increasing. The market for frontier science and technologies could be huge. But these technologies are developing at different paces around the world, with developed countries far ahead. Developing countries risk missing the boat if they can’t position themselves to take advantage. Open science can help – if it can thrive alongside governments’ desire for control over strategically important tech.

48. Total global investment in R&D (public & private) grew strongly by 5.2% in 2021. Worldwide corporate spend on R&D reached a historic high of $1.1 trillion in 2022. Global patent applications increased from c. 2 million in 2010 to c. 3.5 million in 2022, the vast majority in developed economies (plus China and India) (though growth stagnated in 2022). Yet the socioeconomic impact of innovation remains low: labour productivity is stagnant, life expectancy continues to fall, CO2 emissions have returned to pre-pandemic levels.

49. The frontier tech market (AI, green hydrogen, electric vehicles, etc) could grow from $1.5 trillion to $9.5 trillion by 2030. But developing economies are still the least ready to make the most of frontier technologies, which rely on digitalization and connectivity - with Latin America and sub-Saharan Africa least ready and even China, the most-ready developing country, ranked 35, according to UNCTAD. Developing countries’ share of global exports of green tech fell from 48% in 2018 to 33% in 2021. But some countries “overperform” (doing better than their per capita GDP would suggest), including India, the Philippines and Viet Nam – showing that developing countries can use frontier tech to leapfrog and move ahead.

50. Students’ proficiency in science remains below average in those developing economies that participate in the Programme for International Student Assessment, jeopardising the potential future uptake of advanced tech.

51. The EU is investing $1.2 bn in “deep tech” innovations in generative AI, space technologies and quantum technologies, to stimulate their commercial application to real-world challenges.

52. The number of countries with open science policies (making scientific knowledge, methods, infrastructure and data freely accessible to all) has almost doubled since 2021. The International Science Council proposes a new mission-led science model, investing more heavily in collaboration across scientific disciplines to drive progress towards the SDGs.
**WHAT TO WATCH**

- AI is beginning to **accelerate scientific productivity** (e.g., new drug discovery, medical imaging, robots to accelerate experiments)
- How will **momentum towards open science** clash with the race to develop and control strategically important tech assets like AI or silicon chips – “**AI nationalism**”?
- The European Space Agency has begun a **space-based solar power** program
- The African Union’s nascent **African Outer Space Flagship Programme**, while not yet operational, aims at continental collaboration in an area of growing scientific and multilateral importance

**STILL UNCERTAIN...**

- New **blockchain-based infrastructure** can drive open science by persuading scientists to share “their” data. Using blockchain creates immutable, transparent records of data, permanently linked to its creators
- An **Open Quantum Institute** at CERN aims to prevent a quantum computing divide by offering the whole world access to a pool of industrial quantum machines, particularly for SDG-related applications – but it’s still **early days for the practical understanding and application of quantum tech**

**TRENDS**

- Total global investment in R&D continues to grow, with developed economies still in the lead
- Cutting-edge technologies such as AI, space tech and quantum tech increasingly viewed as strategic national assets
- The open science movement is growing
HEALTH IN A CHANGING CLIMATE

Diverse anthropogenic impacts such as climate change, pollution and biodiversity loss are making the global environment more conducive to the spread of disease, with the poor most at risk. Although new vaccines and digital health solutions offer hope, many developing countries cannot afford to fund adequate health care (increasingly acknowledged to include mental health).

53. **Zoonotic disease outbreaks** (animals to humans) are increasing due to deforestation, global warming and biodiversity loss. People in LMICs with weak healthcare systems are worst hit. Recent modeling estimates a 27% chance of another pandemic within 10 years. Climate change is increasing the geographic range of diseases like malaria, leishmaniasis and schistosoma. Global dengue cases have increased ten-fold since 2000.

54. As mean global temperatures rise and summer seasons become more severe, heat-related mortality is increasing. Between 2030 and 2050, climate change is expected to cause 250,000 additional deaths per year, from undernutrition, malaria, diarrhoea and heat stress.

55. **Outdoor air pollution** caused 4.2 million premature deaths worldwide in 2019, 89% in LMICs; it is linked to dementia and strokes. Particulate matter air pollution is a primary driver of global antibiotic resistance. Without immediate action, global deaths from anti-microbial resistance are projected to rise from 700,000 to 10 million per year by 2050.

56. On average, LICs spend 1.4 times as much on debt servicing as on healthcare. LMICs have redirected health budgets from areas like malaria, TB and HIV to COVID-19 and pandemic preparedness, potentially reversing progress in these sectors.

57. A **loneliness “pandemic”** across all ages and regions is damaging health, lifespans and community welfare. Providing mental health services is a special challenge for LMICs, where only 12% of people with psychosis, and 3% of those with depression, receive treatment.

58. **Digital tools** can improve health equity by expanding access to affordable healthcare and addressing unmet needs. Indeed, digital health could transform health systems, but many countries aren’t prepared. Even many OECD countries lack the necessary strong governance of health data and digital security. While 90% have electronic health portals, in less than half can citizens fully interact with their data.

59. While global malaria deaths are still above pre-COVID-19 levels, a new, highly effective **malaria vaccine**, the first vaccine against chikungunya virus and vaccines against the dengue viruses have recently been approved. Cameroon has just launched the first routine **malaria vaccination** programme.
TRENDS

- Increasing risk of zoonotic diseases
- Growing health costs of environmental pollution
- Growing potential of, and demand for, digital health solutions

WHAT TO WATCH

- **Generative AI** could unlock up to $1 trillion of improvement in healthcare, both administration and clinical applications.
- The spread of **harmful information**, enhanced by AI and social media, threatens health interventions, especially in humanitarian emergencies.
- **Health threats to future generations**: microplastics detected in placentas and breastmilk; exposure of pregnant women to “forever chemicals” linked to their children’s decreased fertility
- **Increasing conflicts and climate change** are disrupting health systems in LICs

STILL UNCERTAIN...

- Next generation treatment like **CRISPR gene editing** and **neural implants** for cognitive enhancement are pushing the limits of **what it means to be human**
- A more **holistic approach to health** is rediscovering what others never forgot - therapies like “forest bathing” and food as medicine
- Addictive devices and platforms are **rewiring cognitive capacities**
**MAKING THE GREEN TRANSITION**

Renewable energy is booming. Investments in renewables overtook those in fossil fuels in 2023 for the first time ever. But it’s still concentrated in developed countries; developing countries are attracting only one-third of the investment they need. Even with sufficient investment, governments still face the challenge of ensuring that the energy transition is fair and equitable. Meanwhile the race to renewables is complicated by geopolitical tensions, including competition for vital scarce resources.

60. **Global renewable capacity additions increased** by almost 50% in 2023 to nearly 510 gigawatts, the **fastest growth for 20 years**. Policy momentum, relatively cheap prices and energy security concerns are driving growth in solar and wind. Alongside record increases in capacity in Europe, the US and Brazil, **China’s acceleration was extraordinary**: in 2023 it commissioned as much solar PV as the entire world did in 2022, while its wind additions grew by 66%.

61. **Investments in renewable energy in 2023 significantly outpaced** those in fossil fuels for the first time. Of an estimated $2.8 trillion invested in the energy sector, **$1.7 trillion** went to clean energy. But investment is **concentrated in developed countries**. To make progress towards the COP 28 goals of tripling renewable energy capacity and doubling the annual energy efficiency improvement rate by 2030, **developing countries need to invest about $1.7 trillion** in renewable energy per year. In 2022, they attracted only $544 billion. **Helpful steps** would include de-risking energy transition investments, public-private partnerships to reduce the cost of capital, and debt relief to provide fiscal space for investment in emerging economies and least developed countries.

62. Moreover, while the COP28 agreement to transition away from **fossil fuels is a promising sign**, fossil fuel subsidies rose to a **record $7 trillion** in 2022.

63. **Geopolitical tensions** are triggering concerns around energy security and **access to critical minerals** essential for the energy transition, such as lithium, cobalt and rare earths. The G20 declaration recognized the importance of **sustainable and responsible supply chains** for the green transition. Eurasia Group rated the **fight for critical minerals** as #7 on its list of global political risks.

64. The green transition is not just a technological or financial challenge. **Its social dimensions** will be a major challenge for governments, threatening livelihoods (eg workers in carbon-intensive industries) and rights (eg **indigenous peoples displaced** from their homelands, losing their culture or livelihoods, without consultation or consent). If not managed equitably, civil unrest could follow.
WHAT TO WATCH

- Tech **breakthroughs in energy storage**, a significant barrier to renewable energy adoption (eg solid-state batteries, sand batteries, hydrogen storage), could mean more resilient power grids and electric vehicles with extended ranges.
- **Green (low-emission) hydrogen** could grow massively (even abate 20% of global emissions by 2050) – but it’s still only 0.7% of total hydrogen demand.
- Lack of attention risks making **electricity grids the weak link** in the green transition. Using AI for smarter, more resilient **energy grids**?
- "**Powershoring**" for developing countries: green jobs and exports through investing in decarbonising industrial plants.

STILL UNCERTAIN...

- Growing promotion of **carbon capture and storage** tech – viewed by many activists as a way to perpetuate fossil fuels.
- Testing and governance of **geoengineering** (eg solar radiation management) to reduce near-term warming.

TRENDS

- Increasing renewable energy deployment and investment
- Fossil fuel subsidies persist, while investments in hydrocarbon production increase
- Not enough clean energy investment in developing countries
THE TRIPLE PLANETARY CRISIS

The severity of the triple planetary crisis of climate change, biodiversity loss & ecosystem degradation, and escalating pollution is increasingly registering beyond UN circles. All three are ranked as top 10 risks over the next decade. Environmental risks feature more prominently in business risk calculations. New multilateral agreements and private sector pledges show glimpses of hope. But will they be realized and will they be enough?

65. Experts warn that the goal of limiting global warming to 1.5°C may be slipping out of reach without steep and immediate greenhouse gas reductions. Global biodiversity loss is more significant than earlier estimates suggest, with over one million species under threat of extinction. Air and chemical pollution kill 9 million people a year (92% of them in LMICs), costing 2% of global GDP and 7% of healthcare.

66. Environmental risks dominate the risk landscape, both short and long term, according to the World Economic Forum and others. Extreme weather events are ranked the second-highest risk in 2024-25, while the top four 10-year risks are all environmental. Younger people rank risks of biodiversity loss and critical change to earth systems far more highly over two years, compared to older age groups. The urgency of climate change is bringing nature and biodiversity along as key solutions to the crisis. Business is sharpening its environmental risk calculations, as insurers, for example, face increasing claims from climate events. Yet AI-fueled disinformation continues to polarize public perception and prevents action.

67. The Kunming-Montreal Global Biodiversity Framework includes removing $500 billion of environmentally unfriendly subsidies. The new UN “high seas” treaty aims to protect maritime biodiversity. BiodiverCities by 2030, integrating nature into urban planning, and One Trillion Trees for reforestation, are also signs of change. The UN Framework Convention on Climate Change is emphasizing the nature-climate nexus and how nature-based solutions can help the climate.

68. Momentum is increasing towards nature-positive corporate strategies, as new disclosure requirements like the EU’s Corporate Sustainability Reporting Directive demand more nature-related data and insights. Finance for nature-based solutions increased from $150 billion (2021) to $154 billion (2022) – though that’s still less than half the $384 billion needed. The Taskforce on Nature-related Financial Disclosures recommends how companies can integrate nature into their decisions, and shift investment toward nature-positive outcomes. Market-based mechanisms, including a stable and high-integrity supply of carbon credits, are key to combatting climate change.

69. The climate adaptation finance gap is estimated at $194-366 billion per year, with developing countries’ needs 10-18 times higher than current public financing. The biodiversity finance gap is $700 billion.
WHAT TO WATCH

- Level of climate ambition, as countries prepare their next Nationally Determined Contributions, due in 2025
- Will governments – given polarization and short-term agendas - drive change fast enough?
- Increased litigation to preserve natural assets for future generations and deliver climate justice
- Growth of nature tech, e.g., AI tool predicting areas at greatest risk of deforestation, drones & satellites to monitor ecosystems or save lives through early warning systems
- Rise of local action as national & global processes fail to deliver

STILL UNCERTAIN...

- When mindset and behaviour will sufficiently shift to drive change at scale
Global migration is increasing, as is forced global displacement. Climate change is not (yet) the main reason most people move, but it is increasingly part of the story. As warming temperatures render areas less hospitable or even uninhabitable, it could trigger large waves of migration, within countries and across borders. But global migration patterns are more strongly linked to socio-economic factors, such as the search for a better life. The growing demand for labour in countries with ageing populations and skills shortages might be an opportunity for more positive, mutually beneficial migration policies.

70. **Global migration increased** from 173 million in 2000 to 281 million in 2021 (2.8% and 3.6% of the global population respectively). **Forced displacement doubled** from 2010 to 110 million in 2023, leaving **more than 1 in 73 people** worldwide forcibly displaced, driven by conflict, violence and rights violations. The number of **refugees has doubled in 7 years** to 36.4 million.

71. **3.3 to 3.6 billion** people live in contexts that are **highly vulnerable to climate change**. Disasters triggered a record **32.6 million internal displacements** in 2022, 98% of them weather-related. Gradual environmental degradation also drives migration; projections estimate **25 million to 1 billion people could become climate migrants** by 2050, significantly altering the spatial composition of the world’s population.

72. **Imbalances of labour supply and demand will grow** as some countries grey rapidly while others, particularly in sub-Saharan Africa, remain overwhelmingly youthful. Over 60 countries, including the world’s 15 largest economies, have declining populations due to lower fertility rates and increased emigration, whereas many least developed countries’ populations are projected to **double by 2050**. **Africa’s share** of the global working-age population will rise from 11% (2000) to 16% by 2030, while Europe’s will decrease from 16% to 12%. **A third of the world’s young people** are expected to live in Africa by 2050. Looking at migration from a “**match and motive**” perspective (how migrants’ skills match the needs of destination countries and what motives underlie their movements) can help design positive migration policies.

73. **Digital tech is transforming** the management of migration, from immigration service chatbots, to AI models to predict migration flows, to digital IDs for refugees. Human rights concerns (e.g., privacy, data protection and discrimination) are already evident alongside the potential benefits.
WHAT TO WATCH

- **Signals of international solidarity**, e.g., Australia offering citizenship to Tuvalu citizens displaced by rising sea levels
- **Changing patterns of migration**: e.g., for the first time, in 2023 more than half the 2.5 million migrants at the **US-Mexico border** came from beyond Mexico and northern Central America
- **Digital platforms shaping decisions**: migrants’ stories shared on social media; digital passports for skilled migrants; digital connections enabling the diaspora to stay involved in their home country; potential migrants learning about opportunities abroad through auto-translate and digital influencers
- **Deurbanization**: growing reverse migration **from cities to the countryside** in different regions

STILL UNCERTAIN...

- Competing politics: can understanding of migration as a **positive force** overcome nativist rhetoric (migration as a threat to **recipient countries’ identity and security**)?