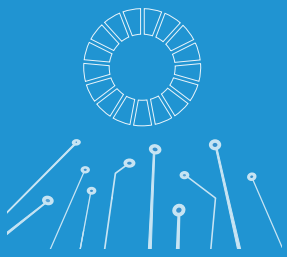

Part 1

From Goals to Means: The Path to SDG Implementation

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By Jeffrey D. Sachs and members of the SDSN Leadership Council and SDSN Global Network

The predicament we face

The Sustainable Development Goals were adopted by all 193 member states of the United Nations on 25 September 2015 as an agenda of unprecedented ambition (UNGA 2015). Grounded in the Universal Declaration of Human Rights and in the rights-based aspirations of the UN Charter, the SDGs constitute the most comprehensive moral and political commitment the international community has ever made – to end extreme poverty, ensure quality education, secure good health, achieve gender equality, decarbonize energy systems, protect oceans and forests, build sustainable cities, and make peace within and among nations.

The goals maintain their strong global support. In 2025, the UN General Assembly adopted around two dozen resolutions related to sustainable development, technology, finance and climate. The overwhelming majority were adopted with near-unanimous support; yet in almost every case the United States, and in many cases Argentina, were systematic outliers, voting against. This near-global consensus and tiny number of dissenters illustrate the durability of the SDG agenda.

The goals are highly ambitious and will not be achieved by the target date of 2030. Yet they have spurred action and inspired governments to take on large and complex challenges. They should remain our framework past 2030 because they define the future we want and need, even if our efforts to build that future have not yet reached the breadth, scale, and speed that the world's governments pledged in 2015.

Yet the problem is more than the scale of the goals' ambition. The problem is that we are not yet organized properly to achieve what we have set out to accomplish. As a result, progress is far too slow, and we are losing ground on many critical objectives as indicated by the 2026 SDG Index and dashboards (Part 2). Shockingly, wars are spreading, climate change is accelerating, and the norms of multilateralism are themselves under dire threat.

The 2030 Agenda included a Means of Implementation section and several targets on financing and partnership, but it did not include concrete commitments commensurate with the ambition of the goals. The political processes that govern our common life – at the United Nations, in regional bodies, within national governments, and at the level of cities and villages – have not yet been redesigned for the work the goals require. Our main task today is to connect means and ends.

The wisdom we already have

Aristotle made the key point nearly twenty-four centuries ago that: "We deliberate not about ends but about means. For the doctor does not deliberate whether he shall heal, nor the orator whether he shall persuade, nor the statesman whether he shall produce law and order, nor does anyone else deliberate about his end. They assume the end and consider how and by what means it is to be attained" (*Nicomachean Ethics*, 3.3). This principle was further developed in 1785 by Enlightenment philosopher Immanuel Kant, in his moral imperative: "Whoever wills the end, wills also ... the means" (*Groundwork of the Metaphysics of Morals*, 4:417). In other words, to will an end without willing the necessary means is to express a wish, not to make a commitment.

In economics, this principle was given operational form in 1956 by Jan Tinbergen, the Dutch economist who was to share the first-ever Nobel Memorial Prize in Economic Sciences in 1969.[1] The "targets and instruments" framework developed in his work, *Economic Policy: Principles and Design* (1956) established the foundational rule that a government with *N* independent policy targets must wield at least *N* independent policy instruments to

1. The inaugural *Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel* was awarded jointly to Ragnar Frisch and Jan Tinbergen in 1969 by the Royal Swedish Academy of Sciences.

achieve them.[2] You cannot deliver universal education, zero-carbon power, and food security with a single policy lever. The basic principle is that instruments must be aligned with targets, a broad range of instruments must be deployed to address a broad range of targets, and the interdependencies and trade-offs among policies must be deliberately taken into account.

The SDGs are the world's targets. The instruments – public investment, fiscal outlays, regulatory frameworks, tax policy, public–private partnerships, international cooperation, science and technology policy, education and training, and the everyday integrity of corporate conduct – are the policy levers through which these targets are to be met. The world's governments have not yet mobilized these instruments at the scale and with the coordination the SDGs require. In addition to government action, we need SDG-aligned commitments from business enterprises, faith-based and civil-society organizations, and universities.

The SDSN frequently surveys its global network of experts to assess government efforts and policy frameworks for the SDGs. This year's survey focused specifically on the post-2030 agenda. Not surprisingly, respondents emphasized implementation, with three-quarters or more identifying the following priorities: strengthening the means of implementation; reforming the global financial architecture; developing guidance on SDG synergies and trade-offs; accounting for international spillovers; embedding AI and emerging technologies in the SDG framework; and preserving continuity in the goals and targets after 2030.

In short, we have willed the goals. Now we must will the means.

2. Tinbergen's Rule establishes that to achieve *n* independent policy targets; a policy maker must wield at least *n* independent and effective policy instruments. Tinbergen's rule, in its original form, was proved for linear models with a fixed number of independent targets and independent instruments. In real policy systems, the underlying relationships are non-linear, instruments are bounded by political, fiscal, and institutional constraints, the effects of one instrument interact with others, and parameters are uncertain. The exact *N*-for-*N* counting should therefore be read heuristically rather than literally. The point that survives the complications is the one Tinbergen intended: deliberate policymaking means aligning instruments with targets, deploying a sufficient range of instruments for the range of targets pursued, and accounting for the interdependencies and trade-offs among them.

What is missing?

In the decade since the goals were adopted, we have learned a great deal about what is missing. Eight lessons in particular stand out. The first sets the foundation; the others build upon it.

Lesson 1: Peace is the foundation of every Goal

Without peace, none of the other transformations are possible. War destroys infrastructure, displaces populations, diverts resources, weakens and breaks the institutions through which transformation is implemented, and poisons the political relationships across which cooperation must flow. War hollows out the moral architecture on which the SDGs rest.

The wars of the SDG period – in Ukraine, Gaza, Sudan, Yemen, the eastern Democratic Republic of Congo, Myanmar, the Sahel, Ethiopia and elsewhere – have together produced the highest number of armed-conflict deaths since the Second World War (Davies et al. 2025; Rustad 2025). Global military spending has set successive records and reached US$2.9 trillion in 2025 – more than the entire annual SDG financing gap for the developing world (Xiao Liang et al, 2026).

The wars must stop. The military buildups must end. The diplomatic relationships must be repaired. The dispute-resolution mechanisms of the UN Charter, most importantly the Security Council, must be restored to operational use. Alongside this, the regression on rights – of women, of indigenous peoples and minorities, of journalists and especially of people in conflict zones – must be reversed. UN Women must not be dismantled in the name of austerity; gender equality is vital for sustainable development.

Across First Avenue from the UN Headquarters in New York, on the northern wall of Ralph Bunche Park, a passage from the prophet Isaiah is inscribed in granite. It has stood there since 1948, the year the Universal Declaration of Human Rights was adopted across the street:

> They shall beat their swords into plowshares,
> and their spears into pruning hooks; nation shall

> not lift up sword against nation, neither shall they learn war any more.[3]

The Isaiah Wall was installed across the street from the Secretariat because it epitomizes the aim of global governance: a world organized not for war but for human flourishing. The SDGs are the contemporary expression of that ancient vision.

Lesson 2: the SDGs are about transformation, not business as usual

Achieving the SDGs is not a matter of making marginal improvements to existing systems. The SDGs require structural transformation. Six transformations are of decisive importance, as articulated in detail in *Nature Sustainability* in 2019 and informed by the SDSN's *World in 2050* work: education for all; universal health; clean energy and sustainable industry; sustainable food, land, water and oceans; sustainable cities and communities; and digital revolution for sustainable development. These transformations are deeply interconnected; success on any one of them supports the achievement of the others. They must also be pursued within planetary boundaries and designed to make their distributional implications – across regions, income groups, and households – clear and actionable.

Lesson 3: Transformations require long-term investments

Each of the six transformations requires long-term investments – in human capital through education and health, in physical capital through clean energy infrastructure and sustainable cities, in natural capital through restored ecosystems, in technological capital through next-generation digital and biotechnological tools. These investments do not pay off in a single political cycle. They are decades-long commitments. Universal quality education is not only a social objective under SDG 4, but also a precondition for peaceful, democratic and resilient societies capable of sustaining long-term sustainable development transformations.

The decarbonization of an integrated electric power system requires 25 to 30 years. Transforming an education system so every child completes a high-quality secondary education takes a generation. Protecting and restoring the world's tropical forests requires multi-decadal commitments to restore land and then safeguard those restorations. Sustainable agriculture will be a moving target as climate change continues to alter growing conditions.

This generation-long horizon is awkward for political systems built around a four- or five-year electoral cycle, and for capital markets called upon to finance public investments consistently for 20–30 years. Investors in government bonds know that long-term plans must withstand many short-term crises. Even well-designed plans can hit liquidity squeezes. The mismatch between the time horizon of SDG investments and the time horizons of political and financial systems is among the deepest structural problems in implementation.

Lesson 4: Long-term investments require long-term plans

If we are to make decade-long investments, we need decade-long plans.

Goal-based, instrument-rich, decade-long planning has worked. The clearest evidence in the SDG period is China's *Made in China 2025* initiative, launched in May 2015 – three months before the SDGs were adopted in New York (State Council of the People's Republic of China. 2015). The plan set out a ten-year industrial strategy across ten priority sectors, with a focus on green, digital and sustainable technologies: robotics, new energy vehicles, advanced railway equipment, semiconductors and renewables. It identified the means – public investment, research subsidies, procurement preferences, regional coordination, education and training – and put them to work. By 2025, China was producing more than 75 percent of the world's lithium-ion batteries, nearly 80 percent of the world's solar modules, and most of the

3. Isaiah 2:4 (King James Version). The inscription is on the granite wall of the southern staircase in Ralph Bunche Park in New York City, on First Avenue near 42nd Street, directly across from the United Nations Headquarters. The wall was constructed in 1948; the attribution to Isaiah was added in 1975.

world's electric vehicles (Kaiser Kuo 2025; Mischer 2025; IEA 2025). Clean energy now accounts for an estimated 48 percent of China's domestic energy consumption.

Comparable evidence is found in other regions too. The European Green Deal has organized a coherent industrial, regulatory and financing framework around climate neutrality by 2050. The Nordic countries have demonstrated that universal health, education and welfare systems can coexist with technological dynamism. Cities from Copenhagen to Singapore to Curitiba have shown that sustained investments in public transport, urban planning, energy efficiency and livability can reshape urban systems. African examples are emerging too, from Rwanda's national modernization agenda to SDSN's partnership with Benin on integrated national planning – with a similar partnership underway in Uzbekistan.

The broader lesson is not that all countries should replicate a single model, but that structural transformation requires strategic coordination among public policy, finance, infrastructure, technology and industrial upgrading. Developing economies require greater policy space, technological cooperation and access to affordable finance so that they can pursue their own pathways toward sustainable industrialization and participation in emerging green value chains.

Lesson 5: The scale of action is regional and local, not only national

The investments and the planning required for SDG implementation must typically be made not just at the national level, but at the regional scale.

Consider the green energy transition. An African or ASEAN power grid must draw upon dispersed and intermittent primary energy sources: some places have hydro, others solar, others wind or geothermal, and the resource varies by day, week and season. Without interconnection, each site requires expensive storage. With interconnection, when clouds reduce solar generation in one location, winds may be blowing strongly in another. The same logic applies to many transformations. The Amazon is shared by nine nations and the Congo Basin by six; sustainable protection requires coordination. Rivers, fisheries, transport corridors and digital networks all cross borders.

Regional bodies must therefore move beyond being just "talking shops" or mere free-trade areas. They must become implementing bodies – equipped with the planning capacity, financing instruments and convening authority needed to deliver cross-border infrastructure and policy coordination. The European Union has been, since 1993, the world's most ambitious experiment in regional integration; it must now add to its competencies the planning and financing of Europe's green and digital industrial and agricultural systems. ASEAN faces the same imperative in Southeast Asia, as do the African Continental Free Trade Area in Africa, the League of Arab States in the Middle East and North Africa, MERCOSUR in South America's Southern Cone, and the Eurasian Economic Union in the post-Soviet space. Country-to-country development partnerships – between governments of the developed and developing worlds, alongside the multilateral architecture – also remain underused.

Cities are also indispensable, especially for climate, energy and social policy on the ground. The C40 Cities Climate Leadership Group, the Global Covenant of Mayors for Climate & Energy, ICLEI – Local Governments for Sustainability, and the Voluntary Local Review movement have all shown that cities can lead even where national governments lag, and that local implementation succeeds when goals are embedded into planning, infrastructure investment, procurement, budgeting, utility operations, land-use frameworks and service delivery (GCoM 2024; C40 2025). Sub-regional and local levels are where real experimentation and change happen, and unlocking their potential requires enabling frameworks, participatory planning, long-term vision beyond political cycles, and robust peer-learning systems. The SDSN's Global Commission for Urban SDG Finance has identified new pathways to unlock critical financing for urban SDG investments.

Universities and other higher-education institutions are also key, which of course is precisely why the SDSN was created in the first place. Universities produce the engineers, teachers, healthcare workers, public servants and leaders who carry out the transformations;

they conduct critical policy-based research; they sustain policy agendas across political cycles; and they connect governments, civil society and the private sector in regional and local hubs. SDG implementation must also enlist business enterprises, faith-based organizations, civil society, indigenous communities and youth – whose decisions and ownership determine whether the agenda is realized in practice.

Lesson 6: Finance is decisive – global public goods require global finance

The finance gap for SDG implementation is large but not unmanageable. The UN Inter-agency Task Force on Financing for Development (IATF), estimates the annual gap for developing countries at US$2.5–4 trillion (IATF. 2024). That is roughly 2–3 percent of global gross product, or 10–15 percent of global savings (estimated at around US$28 trillion). Global military spending alone reached US$2.9 trillion in 2025 (Xiao Liang et al. 2026). The gap is closeable.

What stands in the way of SDG financing is the lack of global revenues dedicated to the United Nations and the SDG agenda. Voluntary contributions to the United Nations, the multilateral development banks, the climate funds, and the broader international cooperation architecture are chronically inadequate. National politicians compete for short-term advantage by telling voters that money for global cooperation is money taken from domestic priorities. Rich countries are the greatest laggards.

The solution is to move from voluntary national contributions to global taxation. Just as national tax systems exist because the essential public goods that markets do not provide — defense, justice, infrastructure, basic education and health, environmental protection — must be financed through compulsory contributions, the same logic applies internationally. The international community needs taxes on activities of global scope: financial transactions, greenhouse gas emissions, international shipping and aviation, and global digital advertising. The proceeds should fund the UN system itself, the specialized funds for climate and biodiversity, and direct support to low-income countries to keep children in school (SDG 4), in healthcare (SDG 3), and out of extreme poverty (SDG 1).

Proposals along these lines have been on the international table for decades and should now move to implementation. In 2025, the International Maritime Organization came close to introducing a global carbon levy on ocean shipping, until the United States blocked the proposal. The agreement emerging through the UN Tax Convention negotiations to establish a framework for international tax cooperation, including the taxation of ultra-high-net-worth individuals, is a step in the right direction (UNGA 2023, 2025). The task for the coming years is to build a system of international taxation and outlays commensurate with the scale of the SDG transformations.

In parallel, the global financial architecture must reduce the effective cost of capital for developing economies. The main problem is that poorer countries face heightened risks of illiquidity and difficulties in refinancing debt. Financial markets are vulnerable to self-fulfilling panics and runs and therefore need reliable lenders of last resort to avoid liquidity crises. Unfortunately, the world financial system still lacks such a lender. The U.S. Federal Reserve sometimes plays this role, but selectively, mainly for countries closely aligned with the United States. The IMF lacks the mandate to act boldly as a lender of last resort, and too often intervenes only after a liquidity crisis has already taken hold.

Reform of the global financial architecture should therefore include mechanisms to reduce or eliminate liquidity crises, and to expand lending by multilateral development banks. Other innovations should include an expansion of local-currency (non-dollar) lending and climate-resilient debt clauses. The rechannelling of Special Drawing Rights (SDRs) for poverty eradication and sustainable development is also an important priority, as called for by the Bridgetown Initiative. Without these reforms, private investment will not flow to the emerging and developing economies at the scale required.

Lesson 7: Dangerous technologies require global governance

The Covid-19 pandemic killed an estimated seven million people directly and contributed to vastly more excess deaths (WHO 2023). Subsequent investigations have concluded that the SARS-CoV-2 virus that caused the pandemic likely emerged from gain-of-function research funded in substantial part by US agencies, and conducted with inadequate biosafety standards.[4] While there is still uncertainty about the origins of the virus, one policy lesson is already clear: research on dangerous technologies must be overseen at the global level through international standards, transparency and accountability.

Artificial intelligence is being developed at a pace far ahead of the governance architecture needed to manage it; the risks include catastrophic accidents, weaponization, and the destabilization of the international system (Bengio et al. 2024a, 2024b, 2025). AI is also reshaping labor markets in ways that will require coordinated investment in lifelong learning and corporate retraining; resolving structural unemployment cannot be left to markets alone. Beyond labor markets, the concentration of cloud infrastructure, computing power and data ownership in a small number of firms – what some have called "techno-feudalism" – risks widening the divide between technological haves and have-nots and creating new forms of dependence for entire nations. Information manipulation, surveillance, and the bias of models are not collateral damage; they are signs of a governance vacuum that must be filled.

Geoengineering, once a fringe topic, is now being considered by some governments and private actors. Unilateral stratospheric aerosol injection or ocean iron fertilization by a single country or company would be among the most dangerous decisions any government or private actor could make. Synthetic biology, autonomous weapons and advanced nuclear technologies raise similar governance challenges.

The lesson of Covid-19 must be applied generally: dangerous research conducted recklessly, in the absence of binding global standards and meaningful enforcement, can produce global catastrophe. Requisite governance architecture must be built before the next catastrophe, not after it. The international controls on nuclear weapons technology – imperfect as they are – must be reinvigorated and extended to the new generation of dangerous technologies. Harnessing these technologies and digital innovations in ways that advance human development and sustainability is an urgent priority and will require concerted international effort.

Lesson 8: The UN must be for all – and that means on all continents

The United Nations was conceived in 1945 as a global organization, but its operational presence remains heavily concentrated in a small number of cities, mainly New York and a few European capitals, with a substantial program in Nairobi. This geography reflects the world of 1945, not the world the United Nations now serves.

Delivering the SDGs would be accelerated by the creation of new major UN SDG campuses in Asia, Latin America and Africa. A campus in Beijing could focus on the implementation of green technologies; a campus in Delhi on digital technologies for the poor; a campus in Brazil on serving as a global hub for the protection of the world's tropical forests. These campuses would not duplicate the UN's headquarters in New York. Their purpose would be to support practical implementation by bringing together the technical staff, project teams, financial instruments and convening authority needed to advance the SDG transformations.

The campuses should be built on open science and open data. They should function as institutional hubs where shared models, scenario tools, beyond-GDP valuation methods, finance pipelines and learning systems are continuously developed, updated and applied. Representation in the UN system is not only symbolic; it is operationally decisive. Developing countries remain underrepresented in the major global economic and financial governance institutions, despite accounting for the majority of the world's population and a growing share of the global economy. More inclusive governance is essential for legitimacy, trust and effective implementation.

4. U.S. House of Representatives, Select Subcommittee on the Coronavirus Pandemic, 2024. The CIA, in January 2025, also assessed with low confidence that a research-related origin of the COVID-19 pandemic is more likely than a natural origin.

What comes next?

The SDG agenda from now through 2030 and into the post-2030 framework must be focused on implementation. The structure of that effort follows from the eight lessons:

First, anchor the agenda in peace and human rights. Stop the wars, restore the UN Charter's dispute-resolution mechanisms and redirect a meaningful share of military expenditure toward human development.

Second, organize implementation around the six structural transformations, ensuring that they remain within planetary boundaries that their distributional implications are clear and actionable

Third, build the long-term plans – at national, regional and city scales – that long-term investments require.

Fourth, empower regions and cities and enlist universities, civil society and the private sector as implementing partners.

Fifth, build a dependable system of international financing, including global taxation of activities of global scope and reform of the global financial architecture to reduce the cost of capital for developing economies.

Sixth, create global governance mechanisms for dangerous technologies – including AI, biosafety, geoengineering and weapons of mass destruction – before the next catastrophe.

Seventh, establish new UN campuses in Asia, Africa and Latin America, built on open science and open data.

Eighth, develop a small number of high-profile, proactive initiatives through partnerships of governments, the private sector, civil society and academia, focused on the transformations where progress is lagging – including agriculture and food, climate adaptation, education, gender equality, debt and finance – and able to demonstrate concrete results before 2030.

The post-2030 framework should preserve continuity in its goals and targets while sharpening the focus on implementation. It should equip the international community with shared decision-support systems (including open data, interoperable models and shared scenario tools that are co-designed with affected communities, global investment portfolios, and mechanisms for continuous accountability) so that course correction is always possible without having to wait for the next five-year review. It should also clarify the purpose of transformations already reshaping the world economy: assessing whether they are aligned with human flourishing and planetary well-being, or whether they are being shaped primarily by other, narrower interests.

The core means of implementation are now visible. They include equity and inclusion; accountability and learning; planetary integrity; localization through regional, urban and rural pathways; continuous measurement; participatory co-design with the people whose lives are at stake; dependable finance; and the institutional culture, leadership, and skills without which none of the instruments can operate.

We have willed the ends. Now let us will the means.

References

Aristotle. 1999. *Nicomachean Ethics*. Translated by Terence Irwin. 2nd ed. Indianapolis: Hackett Publishing Company, 1999.

Bengio, Yoshua, et al. 2024a. *International Scientific Report on the Safety of Advanced AI, Interim Report.* Ithica, NY: Cornell University. https://arxiv.org/abs/2412.05282

Bengio, Yoshua, et al. 2024b. Managing AI risks in an era of rapid progress. *Science* 384, no. 6698, pp 842–45.

Bengio, Yoshua, et al. 2025. *International AI Safety Report*. Ithica, NY: Cornell University. https://arxiv.org/abs/2501.17805

C40. 2025. *Annual Report 2024*. London: C40 Cities Climate Leadership Group. https://www.c40.org/wp-content/uploads/2025/06/C40_annual_report_2024_Final.pdf

Davies, Shawn, T. Pettersson, M. Sollenberg and M.Öberg. 2025. Organized violence 1989–2024, and the challenges of identifying civilian victims. Annual data update from Uppsala Conflict Data Program. *Journal of Peace Research* 62, no. 4 (2025): 1223–1240.

GCoM. 2024. *2024 Impact Report*. Global Covenant of Mayors for Climate and Energy, Brussels. https://www.globalcovenantofmayors.org/wp-content/uploads/2024/11/GCoM-Impact-Report-24.pdf

IATF. 2024. *Financing for Sustainable Development Report 2024: Financing for Development at a Crossroads*. United Nations, Inter-agency Task Force on Financing for Development (IATF), New York: United Nations, 2024. https://developmentfinance.un.org/fsdr2024

IEA. 2025. *World Energy Outlook 2025*. Paris: International Energy Agency. https://iea.blob.core.windows.net/assets/9753df19-0a71-422a-b725-012c555763b3/WorldEnergyOutlook2025.pdf

Kaiser Kuo. 2025. Made in China 2.0: the future of global manufacturing? In *Annual Meeting of the New Champions,* World Economic Forum, June 2025.

Kant, Immanuel. 2012. *Groundwork of the Metaphysics of Morals*. Translated by Mary Gregor and Jens Timmermann. 2nd ed. Cambridge University Press.

Mischer, Andreas. 2025. Made in China 2025 – successful enough to make an industrial-policy sequel credible. Mercator Institute for China Studies (MERICS), August 2025;

Rustad, Siri Aas. 2025. *Conflict Trends: A Global Overview, 1946–2024*. PRIO Paper. Oslo: Peace Research Institute Oslo (PRIO).

State Council of the People's Republic of China. 2015. *Made in China 2025*. May 8, 2015.

Tinbergen, Jan. 1956. *Economic Policy: Principles and Design*. Amsterdam, North-Holland Publishing Company.

UNGA. 2015. *Transforming Our World: The 2030 Agenda for Sustainable Development*. United Nations General Assembly resolution, A/RES/70/1, 25 September 2015. https://docs.un.org/en/A/RES/70/1

UNGA. 2023. *Promotion of Inclusive and Effective International Tax Cooperation at the United Nations.* United Nations General Assembly resolution, A/RES/78/230, 22 December 2023. https://docs.un.org/en/a/res/78/230

UNGA. 2025. *Terms of Reference for a United Nations Framework Convention on International Tax Cooperation.* United Nations General Assembly. 16 January 2025. https://financing.desa.un.org/sites/default/files/2025-01/n2501014_E.pdf

U.S. House of Representatives, Select Subcommittee on the Coronavirus Pandemic. 2024. *After Action Review of the COVID-19 Pandemic: the Lessons Learned and a Path Forward*. https://oversight.house.gov/wp-content/uploads/2024/12/2024.12.04-SSCP-FINAL-REPORT-ANS.pdf

WHO. 2023. *Global Excess Deaths Associated with COVID-19* (Modelled Estimates). Geneva: World Health Organization (WHO), 19 May 2023. https://www.who.int/data/sets/global-excess-deaths-associated-with-covid-19-modelled-estimates

Xiao Liang et al. 2026. *Trends in World Military Expenditure, 2025.* Stockholm International Peace Research Institute (SIPRI). https://www.sipri.org/publications/2026/sipri-fact-sheets/trends-world-military-expenditure-2025