PART OF THE
BLUE WHALE INQUIRY

OCTOBER 2025

HOLDING THE TENSION

REFLECTIONS FROM NYCW 2025

SYSTEMIQ

SUN Institute for Environment and Sustainability

New York Climate Week 2025 was a strange week, rife with contradictions. On the one hand, the energy, participation and creativity vastly exceeded expectations. The language of climate action may be morphing, as we work harder to show how our agenda aligns with today's political priorities, not least security, growth, localism and abundance. But the direction of travel remains unchanged, and in key areas such as clean electrification of the economy, momentum continues to build. On the other hand, the starting expectations were low. There was no march on the streets of New York. The youth movement was less visible, as was the financial sector. The week felt more tactical, less strategic. More pragmatic, less visionary. On balance, that may be a positive, necessary shift in the psychology of climate action – one that could deliver more results and less drama.

This note distils five priorities from the week, together with some thoughts on how and where we make progress during the hardest phase of the transition. The five priorities are not a comprehensive review of NYCW nor are they a blueprint. But they are a more personal attempt at sense-making, combined with input from Systemiq colleagues who participated in over 100 events across the week. Some commentators want you to believe that the climate agenda is in full retreat. Let's be clear: That's a deliberate misreading of events, straight out of the Merchants of Doubt playbook. The truth is that the world economy is continuing to decarbonize. The energy transition is gathering pace and is unstoppable, even in the US. But the scale-up of new systems is not happening fast enough. Just as crucially, the phase out of the high-carbon, resource-wasteful, old economy is going too slowly. Welcome to the messy, multi-speed climate transition. We now need to grip this inevitable reality, push even harder on the right accelerators, and tackle the real-world trade-offs and barriers.

1. PUTTING PEOPLE FIRST

We are making some but not enough progress at putting people first in our climate agenda. As a sustainability movement, we highlight key elements of social and environmental justice, including through the transition. There is increasing emphasis (belatedly) on the energy access agenda, with growing institutional capacity internationally (e.g. Global Energy Alliance for People & Planet, International Solar Alliance) and on the front-line with thousands of suppliers, developers and specialised financial intermediaries. Over the past few years, tens of millions of people have gained electricity access via clean, decentralised solutions (notably solar + batteries). In 2024 alone, off-grid solar improved access for ~20 million people.[1] Looking ahead, reaching ~95% global electrification by the mid-2040s is entirely plausible.[2] That would be a revolution in people's lives and capabilities – and it's both technologically and financially achievable.

Good though this progress is, it's not enough. There are two additional, critical battlefields which we need to win decisively to convince ordinary citizens across the world that strong climate action is in their self-interest. Both played at New York.

The first is around energy costs. Does the clean energy transition really lower energy costs for everyone – or only in specific situations where the cost of fossil-based energy systems is artificially high (e.g. small island economies)? In the long-term, there's a strong case to argue that everyone will win from lower energy costs from a more electrified economy. But in the short term, it's complicated and we should be honest in admitting that some of the energy inflation affecting households today (in many countries) relates to investments in renewables, storage and the required grid upgrades. We have real work on our hands to provide a compelling evidence base/narrative on the short-term cost advantages of the clean energy transition.

A second key battlefield to win is the universal currency of employment, especially in the context of the AI disruption which is putting everyone's job at risk, from the Uber-driver through to the auditor. If there is one thing that everyone can agree on, irrespective of where they sit on the political spectrum or on the Global North-South continuum, it is on the importance of secure, well-paid jobs. Jobs was, of course, one of the pillars of the Green New Deal – and it remains a key driver of the economic narrative of the current US administration. So, it's good news that we finally have some credible forecasts

regarding the employment effects of the transition to a low-carbon economy. Over 500-600 million jobs (about 25% of the global workforce) are likely to be affected over the next decade across energy, construction, agriculture and manufacturing sectors with forecast job gains far exceeding losses.[3] One prediction: we will hear a lot more about the (concentrated) job losses than we will ever hear about the dispersed job gains. There's a crucial analytic task to keep track of the real numbers, to go from statistics to real stories about real jobs, and to build conviction with the union movement (heavily represented in traditional industrial and energy sectors) that the transition is in the interests of their members.

2. ACCELERATING TECHNOLOGICAL TRANSFORMATION

Technological advances, particularly those now driven at scale by China, are reshaping the climate action landscape. Breakthroughs in solar PV, electric vehicles, and battery technology have already transformed markets; the next wave is expected in food technology. Then materials science. The real story of the climate transition is (and always has been) one of investment and innovation. We now have even greater, promethean powers in our hands, driven by AI (inevitably all over NYCW). As a general-purpose technology, AI can be applied equally well to the installed base of the fossil fuel energy system as it can to the development of the new clean energy economy or to food-tech or to material science (which we need to decarbonize the hard-to-abate sectors). AI applications to optimize recovery rates in oil & gas fields may be able to increase extraction by up to 20%, further reducing the need for new field development. In sum, a mixed blessing. But the real prize for the climate agenda lies in how AI could super-charge the system-level orchestration of new energy, food and transportation technologies to drive down CO2 emissions by between 3-5 GTs annually by 2035 (Systemiq and LSE paper, published in Nature)[4]. That's around 10% of today's emissions. Combine that with potential breakthroughs also on the scale-up of alternative proteins – the next likely area where clean energy, biosciences, AI and Chinese manufacturing ingenuity can combine at scale – and New York provided more reasons to believe that we can stay well below 2°C.

How do we capitalise upon the technology trends which are already bending the curve on GHG emissions? At one level, the answer is simple. Especially for general purpose technologies such as AI, the better the climate/energy policy settings, the more that AI applications will flow in the right direction. Today, the policy settings are not strong enough to be confident of that result. There are however, a couple of potential focus points which emerged more sharply from NYCW. First, there is a clear case for keeping the pressure up on the AI/tech world to hold themselves to account for the positive climate impact of AI. The short-term costs are easy to measure in terms of extra energy demand, some of which will doubtless be supplied by fossil power. Estimates suggest that up to 50% of the additional AI-related energy demand will be powered by fossil power[5]. But those 3-5 GTs of CO2 emission reductions by 2035 are likely to slip through our fingers unless we engage effectively with key players in the AI community, motivating them to act upon the bigger climate prize (both commercial and social license) and then finding a way to track progress.

Second, China is the most systemically important actor to accelerate the scale-up of the next wave of climate-related tech, whether in the food, materials or logistics sectors. We urgently need a new trade, technology and investment dialogue with China on how to build the new climate economy in ways that foster shared international prosperity and security. That may seem naïve right now, given the dominant narrative around "geo-economics" with its emphasis on strategic autonomy over inter-dependence. There are clearly both conflicting and shared interests – and it will take artful diplomacy to use the current disruption wisely. Consider just one example – the energy transition could lead to transformational opportunities for many countries in the Global South, building on their clean energy and critical mineral endowments. Or it could lead to another form of the resource curse. Finding the right models of domestic development, public-private partnership and international cooperation will be key over the next few years. And China will play a central role.

3. RESETTING NET ZERO

There is a growing consensus that the 1.5°C global warming target is not working to set expectations and actions in the real economy. Let's celebrate the massive contribution that Race to Zero has made to stretching ambition and reducing the risk of runaway climate change. But 10 years on from Paris, the Global Stock-Take tells a sobering message that we are "on track" for 2.6 degrees of global warming, given current policy commitments. Even if the new climate economy is starting to scale (and in key applications is competitively advantaged), the old fossil economy is digging in. Countries are continuing to expand *both* new and old energy resources, with security/availability as top drivers. The Russia-Ukraine conflict has reinforced the hierarchy: energy security will always trump climate. The good news is that a more diversified, higher-efficiency, cleaner energy system is also a more secure one. That's a winnable argument, at local, national, regional and international levels.

The technical conversation in energy & climate circles is now shifting towards recalibrating ambitions to 1.7°C or 1.8°C, while still adhering to the Paris Agreement's commitment to keep warming "well below 2°C". This recalibration recognises the gap between current progress and original aspirations, urging a more pragmatic approach. It also acknowledges that there is a huge risk-reduction gain from keeping global warming well below 2°C. The closer we can get to limiting global warming to 1.5°C, the lower the resulting climate damages. Make no mistake: behind every tenth of a degree is a huge amount of avoidable human suffering[6, 7].

But it's not all or nothing. We now need to agree on a credible science-based target which strengthens the incentives for strong climate action by building more conviction, across more actors, about what can really be delivered, by when. It was right to build on the momentum of Paris with a science-based target that stretched us, and which held up in lights the change that our world needs. As it hovers out of reach, it is equally right to agree on the targets and milestones that can breed confidence as well as ambition. Both are essential for combatting defeatism, and for galvanising action and a winning mindset.

What could those actions and incentives look like? First, there is a strong case to do the numbers (one more time) and reinforce the message that nothing changes in terms of core short-term targets (e.g. 3X renewables, 2X energy efficiency, zero net deforestation, 50% reduction in methane emissions – all by 2030), whether the macro-target is to limit global warming to 1.5 or well below two degrees. There will be some stretching of timelines needed in hard-to-abate sectors, including agricultural activities where it's hard to drive rapid change across 500+ million small-holder farmers. The phase-out of fossil fuels, especially oil & gas, will be slower than in a 1.5°C scenario. The scale-up pathway for carbon removal (in its multiple forms) will remain essential.

Second, we should remain laser-focused on the opportunity to build clean energy systems at speed and scale across emerging and developing economies. That's where energy demand growth allied to GDP growth will be fastest over the next decade or two. It's where we see exponential rates of deployment growth, especially of solar power across the sunbelt. In 2024, more than 450 GW[8] of solar capacity was added worldwide – up sharply from 120 GW in 2020[9] – and Africa, a key part of the global sunbelt, has set a new record for solar panel imports this year, reaching 15 GW, a 60% increase on a 12-month rolling basis to June 2025.[10] And it's the crucial battleground in terms of whether or not we get locked into another 25-50 years of (new) fossil fuel-based infrastructure. If 80+% of energy system investments can be into clean energy assets over the next decade, then we give ourselves a chance to stay well below 2°C. Multilateral development finance, which has invested over $250 billion in clean energy systems over the past 5 years[11], remains key, alongside continued support for the predictable, investment-grade policy environments needed to mobilise ~ $1+ trillion of private capital per year.

4. BUILDING RESILIENCE

Discussions in New York highlighted that physical climate risks, such as extreme weather events, greater wild-fire risk, more protracted drought risk and ongoing sea-level rise, pose a more immediate

threat to the economy (and the financial system) than the gradual transition away from fossil fuels. Insured loss numbers related to natural disasters are currently estimated at $100-$200 billion annually, with at least a third attributable to climate-related hazards.[12] The uninsured damages are 1-2 times that number[13], with most of the coverage failures inevitably affecting low/middle-income communities and nations. These numbers can head in only one direction and of course, they fail to do justice to the devastating losses (human and physical) experienced with increasing frequency by front-line communities. A bad hurricane season or a major flood event can cause losses equivalent to a year's GDP and set back development by a decade. There is clearly significant scope to extend insurance cover, including new parametric instruments and mobile systems to improve distribution. But a core message from NYCW is that while these insurance mechanisms are a key line of defence in responding to physical climate risk, they can never substitute for building resilience into our core economic and social structures. Meanwhile, in developed capital markets, the potential for major repricing of real estate and other assets (e.g. municipal bonds, infrastructure assets including utilities) is now understood to be a systemic financial risk. Never forget that real estate is by far the largest asset class in the world, worth $300-$400 trillion, compared with $100-120 trillion for global equities and $100-120 trillion for traded debt.[14,15]

Where and how do we make progress on adaptation and resilience, recognizing the challenge of mobilising both financial and political capital at scale to this agenda? Discussions in NYCW centred on three main themes.

First, the need to make best use of emerging technologies – from remote sensing through more granular, dynamic models to multiple AI applications – to conduct robust climate risk assessments for physical assets, social infrastructure, value chains and financial portfolios, factoring in extreme weather and chronic climate impacts. And to make these tools and technologies available to all countries (especially lower-income), allowing them to improve their resilience planning.

Second, the "nature on the balance sheet" agenda is gaining traction, with a focus on integrating natural capital into financial decision-making. It should be obvious. Actions which degrade the integrity of our natural systems – take coral reefs or mangroves as examples – result in greater exposure to physical climate risk. Investments in these same natural systems help to build resilience and deserve to be treated as real assets, delivering real value to the economy both through mitigating risk and by opening up new value drivers (e.g. more nutritious food or eco-tourism creating good long-term local jobs). There has been a long-standing challenge to get markets for ecosystem services (e.g. forest carbon, biodiversity credits) to take off. The resilience services of natural capital – coastal defence, soil health, well-managed forests, upstream wetlands providing flood defence – could at last, provide the trigger.

Governments and cities are starting to take this agenda seriously. The Government of Brazil's $1 billion downpayment, announced at NYCW, to get the Tropical Forests Forever Facility up-and-running falls squarely into this logic.[16] More broadly, the natural capital thesis is gaining traction with the rating agencies and all the way up to the IMF.[17] And it's reaching corporate boardrooms with many companies – especially in the food and mining sectors – looking to strengthen and transform supply chains in ways that combines resilience, natural capital and net zero goals into one unified agenda, preferably with an aligned, consistent hierarchy of actions and simple way of measuring results.[18]

Third, we were meeting in New York. It should therefore be no surprise that the private capital markets are warming up to the question of how to generate a price signal, linked to observable resilience metrics. How will countries, cities or companies that invest to strengthen resilience be rewarded by capital markets through lower costs of capital? The other case – where the markets penalize highly-exposed actors – is easy to construct and already happens. We now need to balance risk and reward. Expect to see a combination of insurers, credit providers, bond issuers and rating agencies all scrambling to shape this agenda (and the key metrics).

5. “IN THE MONEY” DELIVERY

There was little talk in New York of setting new high-ambition corporate targets and even less about “green premiums”. Rather, there was much more talk about the practicalities of implementing the first 80% of existing net zero transition plans that are “in the money”. There’s strong academic literature to support the argument that those companies who have embedded net zero into their real operations, driving electrification through their value chains, focusing on resource efficiency and on low-carbon innovation are the ones who are staying the course.[19] Given the cost competitiveness of clean electrification as a business lever, there was growing interest in the potential for leading companies to drive this agenda through their supply chains (i.e. reducing Scope 3), creating positive incentives and economics for their core suppliers in the process. Back-of-the-envelope estimates suggest that there is up to a 1 GT prize available (annually) if the top 125 companies in the world were to support faster clean electrification of their supply chains.[20] Beyond deeper electrification, there were lots of innovative ideas around supply chain decarbonisation, typically involving some form of “insetting” where downstream companies (e.g. in consumer goods) would support upstream decarbonisation (e.g. of molecules) through a book & claim mass balance system (rather than a fully segregated supply chain).

For most large companies, Scope 3 emissions – their value chain emissions outside direct operational or electrification control – represent 80% or more of their emissions. Because these Scope 3 emissions are not directly controlled by these companies, it is highly likely that over the next 2-3 years, many large (indeed flagship) companies will fail to meet their 5-year decarbonisation targets which they have agreed with SBTi. This poses a huge reputational challenge to the whole system for corporate net zero accountability and performance. One result - an emerging challenge to Scope 3 accounting from the E-Liabilities methodology which would effectively make each company accountable only for its own Scope 1 and 2 emissions (akin to VAT accounting). The argument goes that if everyone took care of their Scope 1 and 2 emissions, then Scope 3 emissions would automatically be eliminated, overcoming all the double and triple-counting problems. But in practice, we know that it’s only by holding larger companies accountable for their full value chain emissions that they have an incentive to decarbonise their overall business model.

There are more promising avenues available, especially if we are willing to give more companies the benefit of the doubt and treat them (presumptively) as partners on the net zero journey. For example, there could be stronger incentives for companies to “inset” or make credible within-supply-chain claims for decarbonisation efforts, including actions to speed up clean electrification. There could be a transitional case over the next 5 years (given policy and infrastructural constraints) that would allow companies with ambitious net zero targets to buy high-integrity (beyond value chain) for a percentage of their Scope 3 emissions. A third lever would be to provide more of a grading of corporate net zero performance (with agreed catch-up measures) rather than a binary pass-fail regime. There is clearly a risk that some companies will take advantage of a more flexible rule set. But on balance, the greater risk is that, absent some well-calibrated flexibility on what today remains a hybrid voluntary-regulatory regime, we will see a contagious exodus of high-profile corporates from the net zero alliance and an erosion of private sector support for strong regulatory measures. Right now, that’s by far the bigger risk.

***

At our Blue Whale supper in New York, Professor Otto Scharmer encouraged us to slow down for just a few moments – it was New York, after all. Recognising that we are in a difficult moment for advancing system change, Otto asked what are we each observing around us? And how, as leaders and a community, should we respond?

Everyone will have their own response to that question. For me, what I observe is the incredible adaptive, innovative, high-integrity, resilient qualities of the sustainability movement. As Christiana Figueres would say, the courageous combination of outrage and optimism. But I also see a fragmented, insecure movement in which the natural first instinct, including mine, is to protect my own organisation

in the storm. To play more defensively to preserve what I have rather than to collaborate more radically and generously.

But the problem today is we don't have the luxury of time to continue playing this game. The forces that wish to stop us are fighting harder and dirtier than ever. The "moderate middle"[21] – sensible, pragmatic actors who support action on climate and nature – are increasingly being told to slow down, as delay parades as the new denial. Resources are thinly spread, modes of collaboration are fragile, and we lack a common narrative, a self-organising core, an agreed set of priorities and ways of delivering at speed and scale. The essential message of this note is that as a sustainability movement, we will need to combine purpose, principle and pragmatism in new ways. To demonstrate how strong climate action can meet people where they are in their day-to-day lives. To build a new stronger partnership with the tech community and with leading Chinese entrepreneurs and policy-makers. To view and communicate a credible, transformative strategy for well below 2 degrees as a real win, not as a failure to achieve net zero by 2050. To make investing in resilience a positive design feature, not a bug of the climate action agenda. To strengthen the carrots for ambitious corporate action, while guarding against greenwashing.

There is a tension in all these statements – a risk that we let go of our principles and that we confuse pragmatism for progress. Learning how to hold that tension, how to make it productive and how to build common purpose, well beyond the sustainability movement – that's where we need to focus. And we need to learn to do so together.

***

REFERENCES

[1] GOGLA. (2025, May 27). *20 million people improved their energy access through off-grid solar in 2024, according to the new Global Off-Grid Solar Market Report*. GOGLA Newsroom. Link here

[2] International Energy Agency (IEA) & World Bank. (2024). *Tracking SDG 7: The Energy Progress Report 2024.* IEA / IRENA / UN / World Bank / WHO Joint Publication. Link here

[3] Forthcoming report by the Global Initiative on Jobs & Skills for the New Economy to be released at COP30 in Belem – including a 10-point Action Agenda for a People-Centered Climate Transition.

[4] Systemiq & LSE. (2025). *Green and intelligent: The role of AI in the climate transition*. Nature. Link here

[5] International Energy Agency. (2025, April). *Energy and AI* (World Energy Outlook Special Report). International Energy Agency. Link here

[6] United Nations. (n.d.). *Every fraction of a degree matters.* United Nations Climate Change. Link here

[7] Intergovernmental Panel on Climate Change. (2021). *Summary for Policymakers. In Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report* (PDF). Link here

[8] International Renewable Energy Agency. (2025). *Renewable capacity statistics 2025* (PDF). Page 21. Link here

[9] S&P Global. (2020, June 16). *Global solar growth to dip 4% in 2020 to 112 GW on coronavirus restrictions*. Link here

[10] Ember. (2025, August). *The first evidence of a take-off in solar in Africa*. Link here

[11] Systemiq Analysis. (2025). Estimate of annual clean energy and transport investment (~USD 50 billion), based on Independent High-Level Expert Group on Climate Finance. (2024). *Raising Ambition and Accelerating Delivery of Climate Finance: Third Report,* Link here and *Joint Summary Report on Multilateral Development Banks' Climate Finance 2024.* Link here

[12] SEO Amsterdam Economics. (2025, October 1). *The insurance costs of climate change* (Publication No. 2025-154). Link here

[13] Swiss Re Institute. (2025, April 29). *Sigma 1/2025: Natural catastrophes: insured losses on trend to USD 145 billion in 2025.* Swiss Re. Link here

[14] Savills World Research, Tostevin, P., & Rushton, C. (2023, September). *Total value of global real estate: Property remains the world's biggest store of wealth.* Savills Impact. Link here

[15] MSCI. (2024, November 5). *Sizing up the global-market portfolio.* Link here

[16] Reuters (2025, September 23). *Brazil's Lula Announces $1 Billion Investment in Global Forest Fund.* Reuters. Link here

[17] IMF (2024). *Embedded in Nature: Nature-Related Economic and Financial Risks and Policy Considerations.* IMF Staff Climate Note No. 2024/002. Link here

[18] Systemiq [White paper]. (2025, June 30). *Supply chains, finance and the future of forests*. Link here

[19] Imperial College. (2025). *A behavioural revolution: Sustainability actions that create alpha*. Leonardo Centre on Business for Society, Imperial College Business School. Link here

[20] We Mean Business Coalition & CDP. (2019, December 13). *Supply chains hold the key to one gigaton of emissions savings*. Link here

[21] Rockefeller Foundation. (2025). *Demanding Results: Global Views on International Cooperation.* Rockefeller Foundation. Link here