Net-Washed

How a Rubric for Real Zero can solve the problem of Net-Zero Greenwashing

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Introduction

Despite the phrase 'net zero' never actually appearing in the Paris Agreement, 'net-zero by 2050' has become the main benchmark in mainstream discussions around climate targets. Companies and governments alike looking to get some positive press on climate action announce net-zero targets with great fanfare. Civil society organizations have increasingly been raising the alarm that net-zero framing allows for an enormous amount of greenwashing, creates huge threats for the land sector and communities in the Global South, and could ultimately undermine efforts to get the world on track for the Paris Agreement goals.

Considerable scrutiny is required to understand the actual climate action being proposed in a net-zero pledge, assuming there is any real action at all. Net zero is a balance of greenhouse gas emissions and removals - essentially a pledge that for as many emissions that are emitted, that amount of emissions will be removed from the atmosphere. This sounds reasonable at the outset, if it means a very small amount of residual emissions combined with removals from restored ecosystems, but it can also - more likely mean virtually business-as-usual ongoing emissions theoretically compensated for by purchasing some kind of offset. This essential flaw in net-zero framing means that net-zero pledges are not necessarily ambitious or necessarily in keeping with what needs to be done to limit global warming to 1.5°C or even 2°C. In fact, they may not involve eliminating fossil fuels or even significantly reducing emissions at all.

In addition to the harm inherent in failing to reduce emissions, the offsets being planned to make up for those ongoing emissions are often dangerous for communities, and there is a real risk they will not deliver on any climate benefits. Offsets that rely on the land sector (e.g. large-scale biofuel/ bioenergy cultivation, tree plantations, and similar measures) lead to an increase in demand for land and thus major risks for land grabs, threatening land rights and food security especially in the Global South. Communities lose – sometimes violently – their homes, source of food and income, and traditional and religious sites.

After widespread land grabs in the global south resulting from the biofuels boom starting in 2007, and the many examples of carbon market projects doing harm to communities globally, any target that opens the door to offsets and increased the strain on the land sector is deeply concerning. But recent research, just looking at Nationally Determined Contributions (NDCs), shows that countries are overrelying on the land sector. The current land area required for natural sequestration in current (inadequate) NDCs is estimated to be 1.2 billion hectares, roughly the size of current global cropland.¹ Royal Dutch Shell's net-zero target alone would require 12 million hectares of land by 2030, an area three times the size of the Netherlands.²

Technology-based removals are also a major cause of concern. These technologies, such as bioenergy with carbon capture and storage (BECCS) and direct air capture, are unproven, especially at scale. BECCS is especially dangerous because it requires significant land use, but all of these technologies would rely on pipelines and carbon storage. Allowing continuing present emissions with the assumption of future removals is a massive gamble, effectively with people's lives. If removal technologies do not deliver at the scale planned, it will be far too late to do anything about what's already been emitted.

An initial review of net-zero pledges by companies representing a range of sectors shows the risks very clearly. Not one of the companies reviewed comes close to being Paris-aligned in aiming to limit warming to 1.5°C. A closer review of a pledge that appears on its face to include aggressive, science-based emissions reductions targets shows deceptive and misleading baseline manipulation. Another company limited its net-zero pledge to an infinitesimally small fraction of its behemoth business. Yet another fails to commit to meaningful reductions and relies on dangerous, unproven technologies.

Considering the greenwashing that is rampant within net-zero pledges, activists will need tools to analyze pledges and concrete demands to hold emitters accountable. A net-zero announcement

cannot be assumed to be an ambitious climate pledge and should not be treated as such. However, as these pledges continue to proliferate, climate activists will need to effectively and efficiently communicate what pledges offer real action, and which are simply greenwashing, in order to hold these companies and countries accountable. The recent report from the United Nations Secretary General's office on net zero is a useful starting point to begin thinking about how to analyze the many net-zero pledges that exist, and what is needed to ensure that there is the kind of ambitious and just climate action needed to reach real zero.

HLEG: A New Era for Net-Zero Pledges

In March 2022, UN Secretary General Antonio Guterres convened the High-Level Expert Group on the Net-Zero Commitments of Non-State Entities (HLEG). The Secretary General has been notable for his oft repeated and firm commitment to the 1.5°C goal and his candor in naming how far off-track climate action has been thus far. At the launch of the group, he stated, "At COP26, last year, I flagged the need for more credible and robust standards and criteria for measuring, analyzing and reporting on the net-zero pledges by non-State entities. Today we take a step towards meeting that need and ensuring the highest standards of environmental integrity and transparency."3

HLEG was tasked with developing recommendations before the end of the year on:

- "Current standards and definitions for setting net-zero targets.
- Credibility criteria used to assess the objectives, measurement and reporting of net-zero pledges.
- Processes for verifying progress towards net-zero commitments and decarbonization plans.

 And a roadmap to translate standards and criteria into international and national regulations."

At the COP27 UN climate negotiations in Sharm El Sheik, Egypt, HLEG delivered their recommendations in a 42-page report titled "Integrity Matters: Net Zero Commitments by Businesses, Financial Institutions, Cities and Regions."⁴ The recommendations were welcomed by the Secretary General, who stated at the launch event that "We must have zero tolerance for net-zero greenwashing."⁵

This signals the most important contribution the recommendations make to the debate around net zero: recognition that net-zero pledges are vulnerable to greenwashing. The existence of the report, not to mention the framing of the recommendations, is a high-level acknowledgement that there are major risks that net-zero pledges are just shiny announcements with no action. This acknowledgement that a net-zero label by itself is in no way sufficient to meeting the threshold for needed climate action is an essential step forward. The recommendations go a long way to detailing the necessary steps that nonstate actors must take for real climate action. Divided into ten recommendations, HLEG's report details key steps for nonstate actors, including companies of different sizes and sectors and regional and local governments, should be taking. Some of these recommendations are quite specific and granular, including by sector, but there are five key elements in the recommendations that make the HLEG report a very useful tool:

- 1. Pledges must include targets and timelines for phasing out fossil fuels, including a public transition plan,
- 2. All pledges must be in keeping with noor low-overshoot 1.5°C pathways,
- 3. All targets must include midterm targets for 2025, 2030, and 2035,
- 4. Pledges should represent a fair share of effort,
- 5. Pledges, transition plans and data should be widely publicly available.

It is worth noting that HLEG specifically calls for net zero pledges and targets to cover all jurisdiction and scopes, taking responsibility for all the emissions impacts, including downstream.⁶ This briefing will also discuss a few areas where HLEG fell short, specifically on offsets and recommendations for the agriculture sector.

Phasing Out Fossil Fuels

The most significant flaw in a net-zero frame is that it allows continued use of fossil fuels, as long as there are promises of removals or other kinds of offsets. Real climate action requires dramatic and urgent reductions in fossil fuel usage. To its credit, HLEG's recommendations are absolutely clear on this point. In fact, fossil fuel companies are automatically excluded from consideration.

It also highlights the need to immediately halt fossil fuel infrastructure development, stating "As the IPCC has highlighted, existing, planned and approved fossil fuel infrastructure will exhaust the remaining carbon budget. Therefore, there is no room for new investment in fossil fuel supply and a need to decommission existing assets."⁷

No- or Low-Overshoot Pathways

The recommendations require specific targets for ending the use or support of all fossil fuels in line with a no- or low-overshoot pathway. This includes an immediate stop on new fossil fuel infrastructure and target dates for phasing out coal plants (2030 in OECD countries and 2040 in the rest of the world). And while it lacks a date, ending oil and gas production is included in the recommendations. Critically, financial companies are also called on to shift their financing out of fossil fuels and into renewable energy.

The recommendations specify that pledges should be in line with a global emissions reduction pathway that limits warming globally to 1.5°C with no or low overshoot (meaning temporarily exceeding 1.5°C by only a small amount and for a short amount of time, if at all) pathways from the Intergovernmental Panel on Climate Change (IPCC) or the International Energy Agency. This is essential for the credibility of HLEG's recommendations, and it requires much more rapid action to phase out fossil fuels.

Pathways that allow for a larger overshoot of the temperature goals allow for greater fossil fuel use in the near term, but rely heavily on removals to get back to the temperature goal. Climate change is already doing devastating damage to communities that will worsen during any overshoot, even if the temperature is brought back down later. Additionally, there is real reason to be concerned that significant overshoot cannot be undone. Most of the technologies named in the models to remove already-emitted greenhouse gases are unproven, and none are proven at scale. Sequestration in natural ecosystems is a proven tool, but as stated earlier, there

are limits to the land sector's capacity and major risks to the food and land rights of communities. Simply put, there is not enough land to compensate for continued fossil fuel emissions.

Finally, past the 1.5°C point, there is a real risk that tipping points will be reached and ecosystems lost. The loss of these ecosystems could release a significant amount of carbon and further constrain sequestration capacity. Therefore, a low- or no-overshoot pathway is the only sensible path. This requires a far faster and more ambitious phase-out of fossil fuels, and HLEG's clarity in calling for this is significant.

Midterm Targets are Necessary

Midterm targets (2025, 2030, 2035) are essential, because far too many companies (and governments) have been willing to set a 2050 goal, because such a long-term goal is easily ignored in the immediate term. That is precisely what the planet cannot afford; if emissions continue at current levels, the world will blow past the 1.5°C goal in the next few years.

All of the IPCC's most recent low- or noovershoot pathways for 1.5°C require that emissions peak in the next couple of years, followed by rapid reductions.

Immediate action is necessary, so the targets that companies are building their transition plans around must demand nearterm action. Targets in 2025, 2030, and 2035 will force early action and an early accounting if targets are not being met.

Waiting until 2050, or even 2040, would be far too late.))

Fair Shares

Civil society has been actively calling on countries to do their "fair share" of climate action for decades. This is both a moral and a pragmatic demand: countries who emitted the most and have the most capacity (wealth) should also be doing the most to respond to the crisis. And without the biggest and wealthiest countries doing their fair share, it is impossible to imagine sufficient global collective action to meet the Paris Agreement goals.

This necessity for fairness applies to nonstate entities as well. Companies know how much they have contributed to climate change in recent years and should have at least some sense of their footprint historically. They certainly know what their capacity is for climate action. HLEG's report does not specify a methodology for determining a fair share, and the methodology behind previous work on this issue by the Civil Society Equity Review and other coalitions is generally focused on nation-states.

However, it is reasonable to start with the premise that the larger the company's carbon footprint (including historical emissions) and the larger and more deeply resourced the company is, the greater their share. The biggest companies and the wealthiest banks should be moving a lot faster than the global targets in the IPCC, phasing out fossil fuels much earlier than others.

Offsets Are Still a Problem

HLEG's treatment of offsets is more mixed. It does allow for offsets, but it restricts their role to either post-2035 (since offsets cannot be used to meet interim goals) or to good-faith contributions where companies want to go beyond what is needed for their fair share of action. Recognition (implicitly at least) that offsets cannot be used to get us on track of the 1.5°C goal is important. Restricting offsets in this way once again puts the emphasis on companies and other actors doing work to significantly reduce emissions in the next decade, which is exactly what is needed.

HLEG is also clearly aware of the risks in carbon market mechanisms, stating that credits are too cheap and undermine ambition as well as being poorly regulated. But it does not wrestle with the reality that carbon market mechanisms and offset schemes have consistently failed to deliver any real emissions reductions.

Furthermore, many of these offset programs have been harmful to local communities, particularly through loss of land rights. And while HLEG does call for credits to be purchased from markets that take a rightsbased approach, this is insufficient in a world where none of these mechanisms have been able to either meet the do-noharm threshold or deliver serious mitigation benefits.

Agriculture Needs More Focus

The HLEG recommendations contain detailed and specific information for some sectors, particularly the financial sector. Food and agriculture, however, are not given any specific recommendations, and land use in general is given less attention than necessary, aside from targets for ending deforestation.

Food systems are responsible for as much of 30% of global emissions, not all of which are deforestation, so the world cannot afford to ignore this sector. The lack of focus here is not unrelated to the concerns about continued use of offsets, considering the heavy reliance on the land sector for many offset schemes. The land sector is critical for climate action, but is complex and deeply connected to human rights, and requires special care and focus.

Agribusiness companies also have considerable capacity to increase sequestration themselves, because of the amount of land they hold. This activity is essential, but it is not sufficient by itself, and agribusiness companies cannot be allowed avoid cutting emissions because of enhanced sequestration in the land elsewhere. Many agribusiness companies are also putting forward emissions intensity targets, where absolute emissions may not be reduced; rather, the *emissions per pound* of (for example) chicken or beef is lower.

Right now, the world needs fewer emissions going into the atmosphere, not more beef for the same number of emissions. And while HLEG does prohibit emissions intensity targets, the prevalence of this metric in food and agriculture spaces suggests stronger, more specific guidance would be beneficial.

Rubric for Real Zero

Despite a few areas of shortcoming, HLEG provides a useful set of recommendations by which to judge net-zero pledges. Building on HLEG's work, and addressing where it falls short around offsets, we propose a "Rubric for Real Zero" to use to analyze climate pledges of all types. This rubric provides topline criteria for evaluating pledges, and is intentionally more concise than HLEG.

A truly comprehensive analysis of a netzero pledge would be complex and best addressed with sector-specific knowledge and requirements. However, the speed at which these pledges are being announced (and often the lack of detailed information accompanying them) means relatively quick analyses are needed to provide a sense of what is real and what is greenwash. The Rubric for Real Zero captures the key elements of a climate pledge for the start of an analysis, including its treatment of fossil fuels, interim targets, fair share and transparency, giving a good first snapshot of whether these pledges contain actual, substantive climate action rather than simply being publicity stunts.

In this paper, we use this rubric to conduct initial evaluations of climate pledges from Nestle, TIAA and Archer Daniels Midland. Each present a concerning picture on what net-zero pledges really mean in practice.



Local farmer and their maize crop in Buzi, Mozambique. Photo: ActionAid.

Rubric for Real Zero	Color
Pledge/Policy Summary	
Fossil Fuel Phase Out	
Does the policy/pledge ensure no new fossil fuel supply, development or infrastructure?	
Does the policy/pledge include a target date to phase out fossil fuel use?	
Does the policy/pledge include specific renewable energy target?	
Does the policy/pledge include a Just Transition plan with some form of meaningful plan for stakeholder engagement or FPIC, where appropriate?	
Ambition	
Does the policy/pledge cover the full business operations of the entity (including scopes 1, 2 and 3)?	
Does the policy/pledge aligned with a 1.5C low or no overshoot pathway?	
Interim Targets	
2025	
2030	
2035	
Does the policy/pledge represent a fair share of climate action?	
Does the policy/pledge include justification of what is considered the entity's fair share?	
Does the policy/pledge include a plan for achieving emissions reductions, including capital expenditures and policy actions?	
Transparency for Land-Use and Removals	
Does the policy/pledge include a clear target and report on emission reductions, separate from any in-value chain removals?	
Does the policy/pledge include ecosystem-based removals?	
Does the policy/pledge include other technology-based removals in value chain?	
Forests and Ecosystems	
Does the policy/pledge include zero deforestation or ecosystem commitments?	
Does the policy/pledge include targets for reducing absolute emissions from agricultural land?	
Offsets and Carbon Credits	
Does the policy/pledge allow for offsets to be used to meet the target?	
Does the policy/pledge allow for offsets to be used prior to 2035?	
If offsets are used to contribute to emissions reductions beyond the entity's own value chain, are such offsets (or other contributions via market mechanisms) generated via mechanisms that guarantee human rights and IPLC land rights?	
Accountability	
Does the policy/pledge prohibit the company from engaging in lobbying activities for Anti-Climate action, including laws, policies, regulations or other normative instruments?	
Does the policy/pledge ensure publicly available, easily accessible and standardized data on compliance?	
Does the policy/pledge require third party verification of data?	

Nestle

Pledge/Policy Summary	Color	Notes
Fossil Fuels Phase Out		
Does the policy/pledge ensure no new fossil fuel supply, development or infrastructure?		Biofuels will also play an important role in the decarbonization of ocean freight.
Does the policy/pledge include a target date to phase out fossil fuel use?		
Does the policy/pledge include specific renewable energy target?		Nestle claims it will increase use of renewable electricity in manufacturing goods to 100% by 2025. The company will achieve this through power purchase agreements, green tariffs, renewable energy certificates and on-site production to achieve 100% renewable electricity by 2025.
		However, Nestle will also work with suppliers to increase the availability of energy generated from biogas and biomass by 2030.
		Nestle will reduce emissions by 20% by 2025 and 50% by 2030, driven first by energy efficiency measures and increasing the amount of renewable electricity we use to achieve 100% by 2025.
		Nestle claims it will reduce direct emissions related to energy to zero by using 100% renewable energy.
Does the policy/pledge include a Just Transition plan with some form of meaingful plan for stakeholder engagement or FPIC, where appropriate?		One mention of a Just Transition Plan. No detail provided. (Add language about investments in smallholders)
Ambition		
Does the policy/pledge cover the full business operations of the entity?		The plan does not include all Nestle brands. Several brands claim carbon neutrality already, with many more indicating plans to achieve carbon neutrality by 2025. However, Nestle indicates that it only requires "a minimum reduction in emissions, with insetting and offsetting allowed for the rest." The plan also excludes, as per SBTi guidance, some Scope 3 emissions:
		Consumer use of sold products (12.7 MTCO2e) and Purchased services, leased assets, capital goods, investments (8.6 MTCO2e).
Does the policy/pledge aligned with a 1.5C low or no overshoot pathway?		
Interim Targets		
2025		Plan includes 20% reduction by 2025.
2030		Plan indicates 50% reduction by 2030, however the commitment is only against a 2018 baseline plus company growth . With this inflated baseline, the company is only commiting to achieve a 30% reduction against its 2018 baseline.
2035		
Does the policy/pledge represent a fair share of climate action?		The pledge is not aligned with 1.5C low or no overshoot pathway and therefore by definition does not represent a fair share.
Does the policy/pledge include justification of what is considered the entity's fair share?		
Does the policy/pledge include a plan for achieving emissions reductions, including capital expenditures and policy actions?		Plan includes series of key actions, including CHF 1.2 billion investment to support regenerative agriculture across Nestle supply chain, as part of a total investment of CHF 3.2 billion by 2025.

Nestle	Color	Notes
Transparency for Land-Use and Removals		
Does the policy/pledge include a clear target and report on emission reductions, separate from any in-value chain removals		"More than two-thirds of our emissions come from sourcing ingredients, so this is where we see the biggest opportunities. By 2030, we plan to remove 13 million tonnes of CO2e emissions from the atmosphere by prioritizing actions we can take now, while we develop projects that will pay off in the future.
		Removing GHGs using natural solutions, as well as technologies such as direct air capture and carbon storage, are not alternatives to tackling high emitting activities. However, these developments will play a role in helping us reach our net zero goal. By investing in these solutions now, we can help ensure they are ready to deliver at scale by 2050."
Does the policy/pledge exclude ecosystem based removals?		
Does the policy/pledge exclude other technology based removals in value chain?		
Forests and Ecosystems		
Does the policy/pledge include zero deforestation or ecosystem commitments?		Nestle "aims to achieve 100 percent deforestation-free meat, palm oil, pulp and paper, soya and sugar primary supply chain by 2022, and by 2025 for coffee and cocoa."
Does the policy/pledge include targets for reducing absolute emissions from agricultural land?		Yes it does, but they are weak.
Offsets and Carbon Credits		
Does the policy/pledge disallow for offsets to be used to meet the target?		The pledge asserts that no offsets are allowed to achieve the corporate target. However, subsidiary brands, which are not included in the scope of the corporate net zero target, are allowed to use offsets.
		Nestle claims its intention to use Natural Capital Solutions as valid insetting, and seeks to advocate for their inclusion an allowed and recommended GHG insetting tool, regulated under the GHG Protocol and SBTi. Nestle is further advocating for that clear standards that legitimize high-quality insetting and offsetting as valid carbon compensation tools and focus on outcomes rather than certifications.
		From 2030, "Advanced agricultural techniques will deliver a regenerative food system at scale, supported by zero emission logistics and company operations. We will balance any remaining emissions through high-quality natural climate solutions that benefit people and the planet."
Does the policy/pledge allow for offsets to be used prior to 2035?		
If offsets are used to contribute to emissions reductions beyond the entity's own value chain, are such offsets (or other contributions via market mechanisms) generated via mechanisms that guarantee human rights and IPLC land rights?		
Accountability		
Does the policy/pledge prohibit the company from enaging in lobbying activities for Anti-Climate action, including laws, policies, regulations or other normative instruments?		
Does the policy/pledge ensure publicly available, easily accessible and standardized data on compliance?		
Does the policy/pledge require third party verification of data?		The policy does not commit to independent verification.

Nestle

Nestle's corporate commitment is a classic net-zero bait and switch. The world's largest global food and beverage company routinely highlights its intentions to achieve net zero by 2050, with a 50% emissions reduction by 2030 and an interim target of 20% reductions by 2025, and seems to take pains to point out in the press the importance of getting net zero right.8 However, the fine print reveals that the net zero by 2050 commitment is only against a 2018 baseline plus projected company growth. The actual emissions reductions by 2030 is only ~30% from a 2018 baseline, a far cry from the 50% reduction it claims. Baseline manipulation to maintain growth at all costs is exactly the kind of deceptive and misleading pledge that the High-Level Expert Group warned against.

The vast majority of Nestle's emissions (71.4%) arise from ingredient sourcing for its products. Sourcing dairy and livestock ingredients account for 37% of the company's emissions, the largest single source, while emissions for soils and forests account for 27%. The company claims that "Charting a course to net zero means driving a major shift in the way we source and produce these nutritious ingredients, investing in innovations and new business models."⁹

The company is planning significant expansion and growth in emissions for dairy and livestock. Their projected baseline, which reflect a 2019 baseline but company growth, is 50% increase. Given the company's inflated baseline, the 2030 target for emissions reductions from sourcing dairy and livestock is actually only just over 14%. This extremely limited reductions in actual emissions from the company's main source of emissions suggests they are not taking their own statements about a "major shift" seriously any time soon.

In a recent report about the dairy industry, the Institute for Agriculture and Trade Policy (IATP) found that "thirteen of the world's largest dairy corporations combined to emit more greenhouse gases (GHGs) in 2017 than either BHP, the Australia based mining, oil and gas giant or ConocoPhillips, the United States-based oil company."¹⁰ IATP further noted that "unlike growing public scrutiny on fossil fuel companies, little public pressure exists to hold global meat and dairy corporations accountable for their emissions, even as scientific evidence mounts that our food system is responsible for up to 37% of all global emissions."¹¹

In an earlier report, IATP, alongside GRAIN, found that the global meat and dairy industry expanded significantly in recent years, pushing into new territories and scaling up operations, causing significant growth in their emissions. Nestle's inflated baseline, which includes projected growth of emissions of nearly 50%, maps with this trend.

Of the actions that the company intends to take to cut emissions from dairy and livestock, Nestle relies heavily on vague commitments to "agripreneurship," with a particular focus "herd management."¹² The term "herd management" is poorly defined,¹³ though raises troubling questions about both animal welfare¹⁴ and land management practices, especially given the significant projected growth in emissions from dairy and livestock.

Methane reductions, one of the largest sources of emissions from the sector, accounts for a very small fraction of planned reductions and appears to rely on feed additives as rumen modifiers. The policy makes no mention of a just transition, a glaring gap for many farmers and workers in the industry.

As a complement to its net-zero pledge, Nestle has released a "Forest Positive Strategy," which the company views as a key contribution to its net-zero pledge. This strategy outlines the actions it intends to take to address emissions from soil and forests. While this provides significantly greater detail, there are still some important gaps. It is also worth noting that there has been massive, sustained advocacy over the last decade to develop zero deforestation policies and commitments. Nestle was an early adopter of such zero deforestation policies; in 2010, it committed to achieve 100% deforestation-free supplies of palm oil, pulp and paper, soy, meat, and sugar by 2020.¹⁵

Nestle now claims that these "highest-risk» raw materials - meat, palm oil, pulp and paper, sugar and soy – are deforestationfree. The company claims that all its supply chains, including most notably coffee and cacao, will be deforestation-free by 2025.¹⁶

Nestle plans to reduce emissions by 8 MTCO2e by preventing deforestation in its supply chains by 2030. Since the company does not release information about the relationship of the baseline to its intended action, and because the company inflates its baseline with planned company growth, it is unclear if this planned reduction is equal to the emissions it will reduce by ensuring its coffee and cacao supply chain is deforestation-free by 2025, or if it imagines some other expansion into forested landscapes. Nestle's "Forest Positive Strategy" report highlights a range of partnerships and multi-stakeholder platforms, including the planned formation of an external advisory council, that it views as critical to meeting its goals.¹⁷

Nestle indicates that it will advocate for the enabling environment needed for longerterm systemic change, and that it will report publicly and regularly. The company also indicates it will use satellite data to ensure zero deforestation. However, the company does not appear to commit to independent verification of its claims, a key gap. This is particularly important for zero-deforestation claims, given the complexity of ensuring commodities are truly deforestation-free. Loopholes have been well documented, including for example, simply changing the cut-off date for what counts as deforestation-free. In 2014, Nestle was one of 470 corporations that pledged to eliminate deforestation from global agricultural commodity chains by 2020 as part of the New York Declaration on Forests,¹⁸ which has widely been considered a failure. Mongabay reports that the New York Declaration on Forests "missed the mark by a wide margin in terms of achieving its 2020 goal to reduce natural forest loss by 50%."19 The article goes on to point out that "Loss of primary tropical forest in signatory countries – a fair proxy for 'natural forest loss' - rose 12.9% from 6.3 million hectares for 2010-2014 to 7.1 million hectares for 2016-2020. Adding sub-national signatories to the equation worsened the performance, with loss rising 19.3% between the two periods."20

While pledges have been helpful in generating awareness, companies have missed deadline after deadline in voluntary initiatives to stop deforestation. In December 2022, the EU adopted a new law requiring seven high-risk commodities (palm oil, cattle, soy, coffee, cocoa, timber and rubber) be deforestation-free to enter EU markets.²¹ This first-of-its-kind legislation is the type of regulatory oversight that is needed to drive change. Nestle, as an early adopter of zero-deforestation commitments, pledges to support robust regulatory action.

In addition to its planned reductions from deforestation, Nestle plans to count 9 MTCO2e in emissions savings from forest restoration and agroforestry operations (both on and off farm) against its net-zero commitment, greater than the planned reduction in emissions from deforestation. The company is also pledging to plant 200 million trees by 2030 in and around farms where the company sources ingredients.²²

The company provides little information on what standards and policies will guide this commitment, but merely claims that they will "disclose the project portfolio related to this initiative on an annual basis. This will include information related to the types of actions taken, such as, but not restricted to, contracted trees, bamboo growing and wetland restoration."²³

The company claims it does not use offsetting outside its value chain. However, it does explicitly allow its consumerfacing brands, which are some of the biggest names in the industry, to purchase credits. Nestle also supports the Lowering Emissions by Accelerating Forest finance (LEAF) Coalition, which intends to mobilize at least USD 1 billion, through the sale of jurisdictional REDD (forest based) offset credits.²⁴ This strongly suggests that the behemoth Nestle corporate architecture as a whole intends to massively on offset credits to meet future targets. The company itself notes that achieving net zero requires "major shifts" in business operations. Nestle's corporate net-zero commitment is cleverly packaged in high ambition language, but the fine print tells a very different story of expanding and increasing the highest emitting practices in its value chain.

Indigenous peoples and global civil society have put sustained pressure on agricultural commodity companies to force them to the table. That effort is beginning to bear fruit, but the job is far from done. It appears that absent robust action by governments to regulate emissions by the dairy sector, they will continue their high-emitting practices with only marginal tweaks.



Photo: CCØ BAY.

TIAA

Pledge/Policy Summary	Color	Notes
Fossil Fuels Phase Out		
Does the policy/pledge ensure no new fossil fuel supply, development or infrastructure?		
Does the policy/pledge include a target date to phase out fossil fuel use?		
Does the policy/pledge include specific renewable energy target?		
Does the policy/pledge include a Just Transition plan with some form of meaingful plan for stakeholder engagement or FPIC, where appropriate?		
Ambition		
Does the policy/pledge cover the full business operations of the entity?		According to TIAA, as of March 2021, assets under management across Nuveen Investments affiliates and TIAA investment management teams are \$1.3 trillion.
		Net Zero pledges currently apply to the TIAA General Account (the insurance investment account that supports the flagship TIAA Traditional annuity) which holds \$280 billion AUM, Nuveen Real Estate which holds \$156 billion AUM, and TIAA corporate operations.
		TIAA General Account pledge is Net Zero (TIAA/GA/NZ) by 2050, Nuveen Real Estate pledge is Net Zero by 2040 (NRE/NZ), and TIAA corporate operations pledge is Net Zero by 2040.
Does the policy/pledge aligned with a 1.5C low or no overshoot pathway?		TIAA General Account (the insurance investment account that supports the flagship TIAA Traditional annuity): Net zero by 2050, Nuveen Real Estate: Net Zero by 2040, TIAA corporate operations: Net Zero by 2040.
		"As of December 31, 2020 assets under management across Nuveen Investments affiliates and TIAA investment management teams are \$1,259 billion."
Interim Targets		
2025		The TIAA General Account interim 2025 target is limited to the public corporate bond portfolio and directly owned commercial real estate, which together account for roughly 30% of the General Account's assets. The company claims that inconsistent emissions disclosure and carbon accounting standards prevent the entity from committing to an interim target for the remaining 70% of diversified assets and securities held by the General Account. For public corporate debt, the company is commiting to an intensity target of 15-20% reduction in tons C02e/million USD sales and a 15-20% reduction in tons C02e/square meter for direct commercial real estate.
2030		No further information is available
2035		No further information is available
Does the policy/pledge represent a fair share of climate action?		
Does the policy/pledge include justification of what is considered the entity's fair share?		No information is provided.
Does the policy/pledge include a plan for achieving emissions reductions, including capital expenditures and policy actions?		

TIAA

ΤΙΑΑ	Color	Notes
Transparency for Land-Use and Removals		
Does the policy/pledge include a clear target and report on emission reductions, separate from any in-value chain removals		
Does the policy/pledge exclude ecosystem based removals?		
Does the policy/pledge exclude other technology based removals in value chain?		
Forests and Ecosystems		
Does the policy/pledge include zero deforestation or ecosystem commitments?		TIAA has no policy in place to ensure zero deforestation and none of the NZ policies make reference to zero deforestation policies or pledges. In 2018, Nuveen committed to zero deforestation in Brazil.
Does the policy/pledge include targets for reducing absolute emissions from agricultural land?		
Offsets and Carbon Credits		
Does the policy/pledge disallow for offsets to be used to meet the target?		NRE/NZ intends to purchas offsets to meet its 2040 target.
Does the policy/pledge allow for offsets to be used prior to 2035?		No data provided.
If offsets are used to contribute to emissions reductions beyond the entity's own value chain, are such offsets (or other contributions via market mechanisms) generated via mechanisms that guarantee human rights and IPLC land rights?		No data provided.
Accountability		
Does the policy/pledge prohibit the company from enaging in lobbying activities for Anti-Climate action, including laws, policies, regulations or other normative instruments?		NRE/NZ does prohibit engaging in lobbying activities for anti-climate action.
Does the policy/pledge ensure publicly available, easily accessible and standardized data on compliance?		NRE/NZ claims it will provide public annual disclosures in line with industry standards. While there may be some movement on increasing climate related disclosures and standardized data and reporting on net zero pledges through various voluntary initiatives, current practices do not provide publicly available, easily accessible and standardized data.

TIAA

TIAA's net-zero pledge remains pure greenwash. It is limited to a small fraction of its overall investments and does nothing to address its longstanding investments in fossil fuels or its destructive practices of land grabbing. TIAA, one of the largest pension funds in the world, and its wholly owned subsidiary Nuveen, one of the largest investment managers in the world which also claims to manage all of TIAA's assets,²⁵ have failed to act in line with science, despite repeated claims of responsible investing.

TIAA has \$1.3 trillion in assets under management (AUM) as of March 2021.²⁶ However, the current pledge applies to only a small fraction of TIAA/Nuveen's AUM. Netzero pledges currently apply to the TIAA General Account (the insurance investment account that supports the flagship TIAA Traditional annuity) which holds \$280 billion AUM,²⁷ Nuveen Real Estate which holds \$156 billion AUM,²⁸ and TIAA corporate operations. The TIAA General Account pledge is net zero by 2050, while the Nuveen Real Estate and TIAA corporate operations pledges are net zero by 2040.

The small fraction of TIAA's total AUM that is subject to a net-zero pledge is further pared back in its interim targets. The TIAA General Account interim 2025 target is limited to the public corporate bond portfolio and directly owned commercial real estate, which together account for roughly 30% of the General Account's assets. The company claims that inconsistent emissions disclosure and carbon accounting standards prevent the entity from committing to an interim target for the remaining 70% of diversified assets and securities held by the General Account.

For both, the interim targets are merely emissions intensity targets, not absolute reductions. For public corporate debt, the company is committing to an intensity target of 15-20% reduction in tons CO2e/ million USD sales and a 15-20% reduction in tons CO2e/square meter for direct commercial real estate.

Nuveen Real Estate, one of the largest asset managers in real estate with \$156 billion in AUM, has committed to achieve net zero by 2040. In 2017, Nuveen Real Estate set a target to reduce the energy intensity of its global real estate equity portfolio by 30% by 2030.²⁹ In its net-zero pledge, Nuveen advanced this energy intensity reduction of 30% to 2025 from 2030, and includes it its interim target. By 2030, Nuveen is committed to reduce the portfolio's carbon intensity by 50%.

As mentioned above, energy intensity targets do little to deliver the steep emissions reductions that are needed and demanded by science. While Nuveen shifts from an energy intensity target to an absolute emissions reduction target by 2040, Nuveen nonetheless relies on the purchase of carbon offsets to meet its target.

There is very little transparency beyond these commitments about the nature of the TIAA's commitment to net zero. The General Account's net zero commitment was announced in May 2021.³⁰ In June, the company indicated that a report will be provided later in the year "sharing more detail on how the GA anticipates achieving its net zero carbon commitment."

In December 2021, it released its first Climate Report. In that report, TIAA references engaging with policymakers on a number of fronts, though the report makes no mention of the substance of this lobbying effort. From the policies it has developed to date, which delay action and continue poor practices, its lobbying engagement present cause for concern. No specific information was provided in the 2021 report about its net-zero pathway.

In 2022, TIAA released another annual Climate Report, this time providing some operational detail about its plans to meet net zero a full year after it committed to do so. This report also fails to address the scope of its investments or take meaningful action address fossil fuel investments or its destructive farmland acquisitions.

Moreover, TIAA intends to use offsets to meet its already weak targets. Both Nuveen Real Estate and TIAA Operational commitments will purchase carbon offsets to meet their targets.³¹ TIAA indicated in its initial announcement in 2021 that it would both "significantly reduce the carbon footprint of its investments and balance any remaining emissions with investments that remove carbon."³² The company went on to clarify that "Nature-based solutions including afforestation, reforestation and sustainable farming will also contribute to achieving net zero carbon emissions."³³

In October 2022, 299 individuals who hold retirement accounts with TIAA filed a formal complaint with the Principles for Responsible Investment (PRI) against Nuveen, the investment management arm of TIAA (since then, the complaint grew to 800). The complaint alleged "significant gaps between TIAA/Nuveen's claims of responsible investing and its investments in climate-destructive activities and request the PRI Board to investigate and address both TIAA/Nuveen's irresponsible investments and systematic greenwashing practices."³⁴

The complaint includes several key findings related to TIAA/Nuveen conduct, including "at least \$78 billion was invested in fossil fuels, including substantial bond holdings in coal infrastructure, which led to the expansion of coal mining and the use of coal power;" and "Systematic land acquisitions and land management linked to deforestation, illegality, and human rights violations, including in the Brazilian Cerrado."³⁵

In 2018, Nuveen adopted a Zero Deforestation Policy in Brazil, which states that it "will not acquire land on behalf of any of its accounts in Brazil that has been cleared from native vegetation."³⁶ However, independent research that mapped deforestation by foreign held firms shows that 72,753 hectares of TIAA/ Nuveen's land holdings in Brazil have been deforested since 2000.³⁷ Several reports have documented TIAA's practice of using complex corporate structures to evade scrutiny and at times local laws. While PRI ultimately did not suspend TIAA, it also did not counter any of the aspects in the complaints, which raises more questions about PRI's standards than provides reassurance on TIAA's actions.

Archer Daniels Midland

Pledge/Policy Summary	Color	Notes
Fossil Fuels Phase Out		
Does the policy/pledge ensure no new fossil fuel supply, development or infrastructure?		No, but its not a large source of the company's emissions.
Does the policy/pledge include a target date to phase out fossil fuel use?		
Does the policy/pledge include specific renewable energy target?		
Does the policy/pledge include a Just Transition plan with some form of meaingful plan for stakeholder engagement or FPIC, where appropriate?		
Ambition		
Does the policy/pledge cover the full business operations of the entity?		
Does the policy/pledge aligned with a 1.5C low or no overshoot pathway?		
Interim Targets		
2025		Shall we change these to Y/N Questions? Are the interim targets aligned peaking in 2025? 50% reduction in 2030?
2030		No further information is available
2035		No further information is available
Does the policy/pledge represent a fair share of climate action?		
Does the policy/pledge include justification of what is considered the entity's fair share?		No information is provided.
Does the policy/pledge include a plan for achieving emissions reductions, including capital expenditures and policy actions?		
Transparency for Land-Use and Removals		
Does the policy/pledge include a clear target and report on emission reductions, separate from any in-value chain removals		
Does the policy/pledge exclude ecosystem based removals?		
Does the policy/pledge exclude other technology based removals in value chain?		
Forests and Ecosystems		
Does the policy/pledge include zero deforestation or ecosystem commitments?		Pledge references importance of zero deforestation commodity sourcing but provides no further information about implemention of exsiting No Deforestation, No Peat, No Exploitation commitments.

Archer Daniels Midland

Pledge/Policy Summary	Color	Notes
Does the policy/pledge include targets for reducing absolute emissions from agricultural land?		
Offsets and Carbon Credits		
Does the policy/pledge disallow offsets to be used to meet the target?		
Does the policy/pledge allow for offsets to be used prior to 2035?		
If offsets are used to contribute to emissions reductions beyond the entity's own value chain, are such offsets (or other contributions via market mechanisms) generated via mechanisms that guarantee human rights and IPLC land rights?		
Accountability		
Does the policy/pledge prohibit the company from enaging in lobbying activities for Anti-Climate action, including laws, policies, regulations or other normative instruments?		
Does the policy/pledge ensure publicly available, easily accessible and standardized data on compliance?		
Does the policy/pledge require third party verification of data?		

Archer Daniels Midland

Archer Daniels Midland (ADM) does not have a net-zero pledge or policy, merely an "an aspiration."³⁸ What it does have is unrelenting support for a range of risky, unproven, unsustainable technologies that put people and ecosystems at greater risk.

ADM refers to its suite of emissions reductions goals for energy, emissions, water and waste as "Strive 35." As part of that effort, ADM committed in 2020 to reduce its Scope 1 and 2 by 25% by 2035. It later committed to reduce its Scope 3 emissions by 25% by 2035 as well.

In October 2022, ADM released an updated report outlining its work with a third-party on "emissions reductions planning." This report presents the Company's "carbon reduction progress to date and exploration to support our aspiration toward net zero emissions by 2050 at the latest."39 The reports lacks any meaningful ambition or transparency, and indicates likely use of offsets to meet its targets. Despite their abysmal goals, ADM claims it is "working with Science-based Targets Initiative (SBTi) to obtain their approval that our sustainability targets align with ambitious goals to limit the average rise of global temperatures to 1.5 degrees Celsius."

Over 80% of ADM's emissions are Scope 3. The company indicates that "for the categories calculated," Scope 3 emissions were 66.8 MTCO2e and the vast majority, over 50% were from sourcing goods and services, and 38.9% were from processing of sold goods. (The company's scope 1 emissions in 2021 were 13.7 MTCO2e, 16% of its total emissions.) It is unclear if other categories are a material source of the company's emissions or not.

Regardless, the company provides very little information about how it intends to meet this target beyond vague language that it will "implement projects" with partners in the industry to support "growers in adopting practices that address water quality and soil health, such as cover crops, reduced tillage, complex crop rotations, and nutrient management to reduce soil erosion, nutrient run-off, and greenhouse gas emissions." It provides no information about expected emissions reductions from each of these practices.

ADM is pursuing a range of risky, unproven carbon removal strategies, instead of reducing emissions in line with what science requires. ADM intends to massively expand the use of bioenergy carbon capture and storage (BECCS).40 ADM operates the world's first and largest BECCS operation at its Decatur facility, which produces corn ethanol, producing CO2 as part of the fermentation process, which is then stored at a dedicated geologic storage site. The company is already claiming half a million tons of "permanently sequestered" carbon against its scope 1 and 2 emissions. The company claims that the Mount Simon sandstone site has the capacity to store millions more metric tons of CO2."41

ADM has signed a letter of intent with Wolf Carbon Solutions US LLC to create a 350mile steel trunk line capable of transporting 12 million tons of CO2 per year from its operations in Cedar Rapids, Iowa and Clinton, IL to the Decatur site. The company claims that the pipeline is designed as "backbone infrastructure" for the region and says that the pipeline will have significant capacity to serve other actors in the region. ADM claims that "expansion of BECCS can generate meaningful offsets for residual emissions that cannot be avoided."

ADM is receiving a massive influx of public capital to get its CCS project off the ground. The US Department of Energy is providing approximately \$141 million in financial assistance to ADM, with private sources providing the remainder of the \$208 million project cost.⁴² A recent analysis by Carbon Brief found that during a 2.5-year period, the site will sequester only a small fraction of its overall emissions (2.27 MTCO2e) for a net total emissions of 10.6MTCO2e. The analysis by Carbon Brief also notes that the company hopes to leverage this project into "enhanced oil recovery" projects in the Southern Illinois basin. The company extols projects underway to shift to biomass and biogas at several sites.

In addition to the concerns about bioenergy, there are serious and legitimate concerns about the pipelines themselves. Carbon dioxide is an asphyxiant that is heavier than air, and pipelines can be damaged, including from the formation of carbonic acid (enabled by water).⁴³ There are enormous gaps in the safety regulations of these pipelines, and the rupture in Mississippi in 2020 could have been fatal.⁴⁴

Even more alarming, the company plans to expand use of nuclear energy_under its net zero "aspiration" through the use of small modular nuclear reactors, if they become commercially viable. Further, ADM claims that "Direct air capture could provide a method to generate high-quality offset credits."

ADM's net zero aspirations are not so much aspirations as delusions. The company does admit that it needs to go further, and indicates that it will release a clearer plan in the next six months (April 2023). But ADM is already doubling down on highly risky technologies that do nothing to reduce emissions. We are well past the time for aspirations and hopes and daydreams about technofixes that may save our climate. Science, and morality, demands immediate, aggressive action.

Reflections

These case studies are only very initial reviews of the pledges by these three companies. Much more analysis is needed, along with sector-specific guidance to ensure a complete understanding of the climate commitments and possible action (or lack thereof) in each pledge. However, the Rubric for Real Zero is sufficient to make it clear in all three cases that there is reason for doubt on the sincerity of these pledges, and that the companies are not committing to the level of action needed for real zero.

They fall far short of both our rubric and what was proposed in HLEG. None of them have a plan for a real phase-out of fossil fuels. Nestle is inflating its baseline to make their planned cuts look more significant than they are, while TIAA simply does not apply their commitments to a significant portion of their holdings. ADM's net-zero target is not even fixed, merely an aspiration, and embraces numerous false solutions. Our suspicion that a net-zero framing is extremely vulnerable to greenwashing and should not be trusted to be a marker of ambition is confirmed by these three examples. With the climate crisis worsening rapidly, the world cannot afford further delay in real action. Yet emitters have been relentless in avoiding ambitious action while conducting extensive greenwashing exercises to disguise their inaction.

The standard to judge ambition over the next decade of climate action should not be committing to a single target, net-zero or otherwise, but to the specific climate action and transformations needed. Corporations, cities and countries alike must be held accountable to meet this standard of action, not flashy but empty net-zero greenwashing exercises.

Endnotes

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6. Scope 1, 2 and 3 is a way of categorizing different types of emissions. Scope 1 emissions are those directly emitted by the company at their facility, with scope 2 covering energy purchased by the company but perhaps causing emissions offsite (electricity for example). Scope 3 are indirect emissions, either upstream or downstream, related to the non-state actor's activities, products or services. For more, see: Environmental Protection Agency. "Scope 1 and Scope 2 Inventory Guidance." https://www.epa.gov/climateleadership/scope-1-and-scope-2-inventory-guidance

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