NOT ZERO:

How 'net zero' targets disguise climate inaction

Joint technical briefing by climate justice organisations

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Far from signifying climate ambition, the phrase "net zero" is being used by a majority of polluting governments and corporations to evade responsibility, shift burdens, disguise climate inaction, and in some cases even to scale up fossil fuel extraction, burning and emissions. The term is used to greenwash business-as-usual or even business-more-than-usual. At the core of these pledges are small and distant targets that require no action for decades, and promises of technologies that are unlikely ever to work at scale, and which are likely to cause huge harm if they come to pass.

Key takeaways:

- The term "net zero" is used by the world's biggest polluters and governments as a façade to evade responsibility and disguise their inaction or harmful action on climate change.
- "Net zero emissions" does not mean "zero emissions", and should not be accepted at face value.
- There is simply not enough available land on the planet to accommodate all of the combined corporate and government "net zero" plans for offsets and Bioenergy with Carbon Capture and Storage (BECCS) tree plantations.
- Collectively, "net zero" climate targets allow for continued rising levels of greenhouse gas (GHGs) emissions, while hoping that technologies or tree plantations will be able to suck carbon dioxide (CO₂) out of the air in the future.
- By putting the burden for carbon sequestration onto land and tree plantations in global South countries - which have done little to cause the climate crisis - most "net zero" climate targets are effectively driving a form of carbon colonialism.
- Many governments and corporations have pledged to achieve "net zero" by a distant date, further compounding the harm caused. "Net zero by 2050" is too little, too late.
- When assessing "net zero" targets, we must remember key questions of fairness and ethics: Whose land? Whose forests? Whose emissions? Whose responsibility?
- Instead of relying on future technologies and harmful land grabs, we need climate plans that radically reduce emissions to Real Zero.

Introduction

There is a growing global push for "net zero" climate targets. Many governments and corporations have already declared "net zero" climate goals. The UK government as President of COP26 intends to use the 2021 global climate summit to create pressure on countries and corporations to announce new "net zero" targets. Many organisations, media, and politicians portray this as a positive signal that the world is on track to avoid runaway climate breakdown, but this is far from the truth.

Even though it may sound similar, the phrase "net zero emissions" does NOT mean "zero emissions". In almost every case it means the exact opposite and is instead used as a polluter-driven greenwashing scheme. Most "net zero" targets involve vaguely-written plans with loopholes that allow emissions to continue rising - often for decades - based on the assumption that in the future new (risky, unproven and harmful) technologies will be able to remove carbon dioxide from the atmosphere and compensate for or "zero out" those emissions. This "removal" process usually relies on the global South. This means that the countries who are least responsible for causing the climate crisis, and who already endure the greatest impacts of the climate emergency, would carry the additional burden of doing the work global North or developed countries should be doing themselves to reduce emissions.

"Net zero" targets should not be accepted at face value, nor be assumed to signify progress towards a climate-safe future as governments and corporations would have us believe. In fact, weak "net zero" targets accelerate our dangerous trajectory towards runaway climate change.

Civil society, media and governments must scrutinise "net zero" announcements to assess whether they are committing to real action. Or, more likely, is this simply a catchphrase requiring little real action on the timescale needed? We must look beyond the slogans and expose attempts to use the term to obfuscate, distract or delay real emissions reductions. Strong scrutiny and pressure are needed to deliver the transformation necessary to bring emissions down to Real Zero and avoid climate chaos.

We need real action for Real Zero emissions

Planet Earth is already breaching so many environmental tipping points that more than 1.5°C of warming may be locked in within the next ten years.¹ To truly do the hard work needed to avoid runaway climate catastrophe, global North countries and transnational corporations (TNCs) must rapidly stop polluting, and bring their annual emissions down to nearly zero, or Real Zero, within a decade.

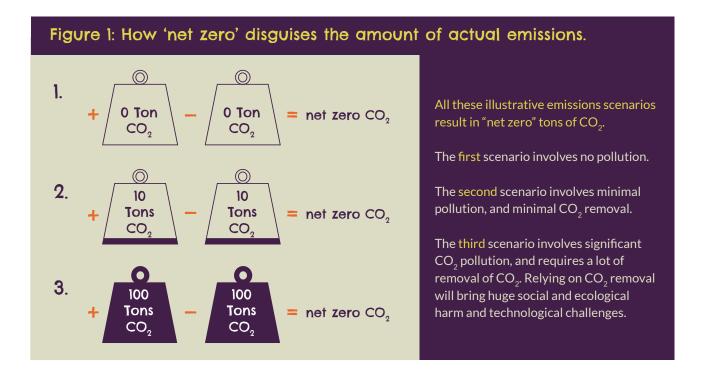
Hugely ambitious interim milestones for 2025 and 2030 are needed to get these plans on track. For governments – particularly the wealthiest developed countries with the largest historical responsibility for causing the climate crisis - bringing down emissions to a meaningful Real Zero target requires restructuring multiple sectors, including energy, agriculture, transport, housing and industry. At the same time, biodiverse ecosystems must be protected and restored to rapidly reduce emissions. And all of this must be done while protecting human rights. The role of public services and utilities must be re-organised, to allow for integrated planning.

Climate action for Real Zero requires deep reserves of courage to challenge the economic models, broken systems and corporate power that are at the root of the climate and biodiversity crises.

^{1.} Lenton, T. et al (2019), "Climate tipping points: too risky to bet against", https://www.nature.com/articles/d41586-019-03595-0

"Net zero" does not mean "zero"

So what does "net zero" mean, and how is it different from Real Zero? The answer lies in the detail.



Unfortunately, the "net" in "net zero" can disguise plans for business-as-usual, or even more-than-usual. The bigger the amount "netted out", the weaker the target.

Our ability to permanently remove CO_2 from the atmosphere is limited. It is dangerous to assume that we can continue releasing large amounts of GHGs into the atmosphere, and that the Earth will have enough technological or ecological capacity to absorb all of the GHGs released under all countries' and corporations' "net zero" plans.

Instead of hoping to remove or "net out" GHGs, climate targets must focus on bringing the amount of GHGs produced as close to zero as possible, and minimising the total amount of GHGs added to the atmosphere. Key questions must be asked to reveal hidden loopholes in "net zero" targets, including:

- When the "net zero" target is reached, how much GHG pollution will still be taking place? Will GHG emissions be reduced to nearly zero - or not?
- How much CO₂ removal does the plan rely on to reach "net zero"? How and where will this be achieved?
- Which sectors and GHGs are included? Some or all?³
- How many years or decades before a country or corporation can claim to be at "net zero"?
- Between now and the "net zero" target date, how many cumulative emissions in total will have been added to the atmosphere?
- Will there be "overshoot", i.e. accumulating atmospheric emissions that take the planet to more than 1.5°C of warming before the assumed CO₂ removals take place, thus significantly increasing the risk of crossing irreversible tipping points?

^{2.} Dooley, K. & Kartha, S. (2018) "Land-based negative emissions: risk for climate mitigation and impacts on sustainable development" https://link.springer.com/article/10.1007/s10784-017-9382-9

^{3.} Kuriakose, J et al. (2019) "Setting climate targets: when is net zero really net zero?" http://blog.policy.manchester.ac.uk/energy_environment/2019/04/setting-climate-targets-when-is-net-zero-really-net-zero/

"Net" is a gamble that comes with great uncertainty and grave potential harm

Unfortunately, a shocking number of government and corporate "net zero" targets actually assume that vast tree plantations, usually in global South countries, or unproven technologies such as Direct Air Capture (DAC) or BECCS, will do the bulk of the work to offset rising emissions.⁴

It is reckless to rely on futuristic technologies that many experts doubt will ever really work at the required scale. Some of the approaches would require huge amounts of land for new monoculture tree plantations, and would be likely to lead to conflicts over food, water, ecosystems and livelihoods. Some proponents envision hundreds of millions – or even billions – of hectares of land being allocated to bioenergy (for BECCS) or carbon-offset tree

plantations. Rural farming and Indigenous communities in the global South are likely to be pushed off their land. As a result, unprecedented landlessness, hunger and food price rises would disproportionately affect people and communities that have done little to contribute to climate change, further compounding the already deep injustice of the climate crisis.⁵

There is simply not enough available land on the planet to accommodate all of the combined corporate and government plans for offsets and BECCS tree plantations. Large requirements for CO₂ removal set the stage for fanciful and dangerous "geo-engineering" solutions.

"Net zero" targets can thus hide deep inequity and injustice. Corporations, Northern countries and elites plan to continue to burn fossil fuels while assuming that the forests and land in the global South will soak up their emissions, and that frontline communities, women and young people will pay the cost with their livelihoods and even lives.



"Net zero" announcements make headlines. Credit: WhatNext?

^{4.} ActionAid (2015) "Caught in the Net: How 'net zero emissions' will delay climate action and drive land grabs", https://actionaid.org/publications/2015/caught-net-how-net-zero-emissions-will-delay-real-climate-action-

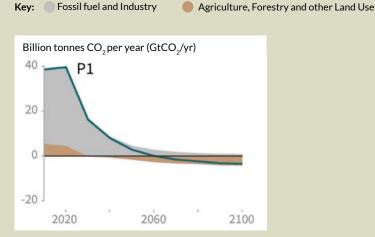
^{5.} ActionAid (2019) "BECCS: A dangerous distraction", https://www.actionaidusa.org/publications/beccs-a-dangerous-distraction/

Figure 2: Four illustrative model pathways developed by the IPCC

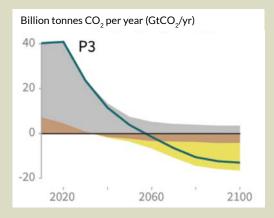
In 2018 the Intergovernmental Panel on Climate Change (IPCC) published the influential "Special Report on Global Warming of 1.5°C." The four graphs below show four different possible pathways for limiting warming to 1.5°C.

The four scenarios show that the more GHGs released into the atmosphere through fossil fuel and industry (the grey area above the horizontal line), the more would have to be removed from the atmosphere using agriculture, forests and other land use (AFOLU - shown in brown) or BECCS – (shown in yellow) below the horizontal line.

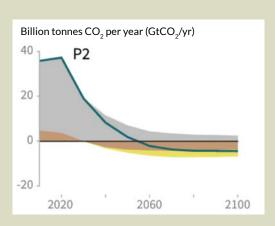
Given the risk that BECCS may never work at scale and would cause immense harm, the only realistic and equitable option for limiting global warming to 1.5° C is to cut fossil fuel emissions to zero as soon as possible, so as to minimise the total GHGs going into the atmosphere.



P1: A scenario in which social, business and technological innovations result in lower energy demand up to 2050 while living standards rise, especially in the global South. A downsized energy system enables rapid decarbonisation of energy supply. Afforestation is the only CDR option considered; neither fossil fuels with CCS nor BECCS are used.

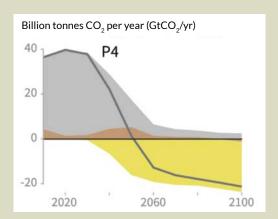


P3: A middle-of-the-road scenario in which societal as well as technological development follows historical patterns. Emissions reductions are mainly achieved by changing the way in which energy and products are produced, and to a lesser degree by reductions in demands.



Bio-energy with Carbon Capture and Storage

P2: A scenario with a broad focus on sustainability including energy intensity, human development, economic convergence and international cooperation, as well as shifts towards sustainable and healthy consumption patterns, low-carbon technology innovation, and well-managed land systems with limited societal acceptability for BECCS.



P4: A resource- and energy-intensive scenario in which economic growth and globalization lead to widespread adoption of greenhouse-gas-intensive lifestyles, including high demand for transportation fuels and livestock products. Emissions reductions are mainly achieved through technological means, making strong use of CDR through the deploymemnt of BECCS.

^{6.} Intergovernmental Panel on Climate Change (2018) "Special report: Global Warming of 1.5°C" https://www.ipcc.ch/sr15/

^{7.} IPCC graphic (2018) "Characteristics of four illustrative model pathways" https://www.ipcc.ch/site/assets/uploads/sites/2/2019/02/SPM3b.png

Net zero by 2050 - too little, too late

The distant dates of many "net zero" targets suggest that they are not at all serious or ambitious. Distant targets of "net zero by 2050"- mean inaction or harmful action continuing for decades. All too often, politicians and business leaders declare "net zero by 2050" climate goals to sound visionary, but without planning to take real action during their terms in office. Instead they can use these distant pledges to defer responsibility for action to their successors, when it will be much too late. (That is, if their successors even choose to abide by the commitments and not repeal the targets.) The Paris Agreement declared a global goal of reaching "a balance between sinks and sources" of GHGs by 2050 (i.e. that all GHGs being emitted in 2050 must be balanced out through carbon "sinks" such as forests or other means), this global target - when taken in combination with the carbon budget to stay under 1.5°C - means that polluters need to get to Real Zero decades sooner than 2050.

Fossil fuel companies such as BP⁸ and Shell⁹ have declared "net zero by 2050" targets, ¹⁰ touting themselves as "climate leaders". But plans show that they are actually planning to extract and burn 120% more fossil fuels than the limit for keeping the planet under 1.5°C of warming. ¹¹ This shows just how dangerous "net zero" schemes really are. If carried out, these plans will effectively make it impossible to meet the Paris Agreement's goal of limiting global warming to 1.5°C. ¹²

Carbon offsets – shifting the burden instead of reducing GHGs

"Net zero" targets often seek to compensate for GHGs through the purchase of carbon credits, also known

as "carbon offsets". But there is not enough planetary capacity to remove and compensate for continued rising GHGs. Therefore, it is impossible for "net zero" plans that rely heavily on carbon offsets to keep us under 1.5°C of warming.

Carbon credits or offsets tend to be purchased by countries or corporations in the global North from projects in global South countries, far from where the GHGs were produced. Supposedly greener actors, usually in the global South, are paid to do emissions-reducing activities on behalf of the purchasing country or corporation with the "net zero" climate target. Carbon offsets and carbon trading schemes mean that polluters can continue business-as-usual without making the changes necessary, 13 yet still claim, as individual institutions, to be on track for "net zero" emissions.

International carbon offsets also tend to increase the burden of climate action for countries and communities in the global South. When emissions reductions from projects in global South countries are purchased as carbon offset credits by global North countries and corporations, the countries where the projects are located are not able to claim those GHG reductions towards their own national climate targets. After selling carbon credits resulting from GHG reduction activities, those countries are still obliged to take additional action to reduce their own GHGs, in order to meet their Paris Agreement obligations - often at greater economic and social cost.

A "net-out-of-jail-free card"

The above concerns mean that in almost every case, "net zero" pledges signify a lack of ambitious action. Most actually serve to greenwash corporate plans that will cause great harm, including human rights abuses, runaway emissions, and ecological destruction.

^{8.} The Guardian (February 2020) "BP sets net zero carbon target for 2050", https://www.theguardian.com/business/2020/feb/12/bp-sets-net-zero-carbon-target-for-2050

^{9.} AFP (April 2020) "Green groups cautious as Shell unveils 'net zero' plan", https://www.france24.com/en/20200416-green-groups-cautious-as-shell-unveils-net-zero-plan

^{10.} Inside Climate News (July 2020) "What does Net Zero Emissions Mean for Big Oil? Not What You'd Think", https://insideclimatenews.org/news/15072020/oil-gas-climate-pledges-bp-shell-exxon

 $^{11. \}quad United \ Nations \ Environment \ Programme \ (UNEP) \ et \ al \ (2019) \ "The \ Production \ Gap", \ http://productiongap.org/2019 \ report/$

^{12.} Oil Change International (2020) "Big Oil Reality Check", http://priceofoil.org/content/uploads/2020/09/OCI-Big-Oil-Reality-Check-vF.pdf

^{13.} Gifford, L. (2020) "You can't count what you can't measure: a critical look at forest carbon accounting", https://link.springer.com/article/10.1007/s10584-020-02653-1

Far from signifying climate ambition, the phrase "net zero" is being used by a majority of polluting governments and corporations to orchestrate escape clauses so as to evade responsibility, shift burdens, disguise climate inaction, and in some cases even to scale up fossil fuel extraction, burning and emissions. The term is used to greenwash business-as-usual or even business-more-than-usual. At the core of these pledges are small and distant targets that require no action for decades, and promises of technologies that are unlikely ever to work at scale, and which are likely to cause huge harm if they come to pass.

Adding "net" to "zero" means a "get-out-of-jail-free card" for polluters that is increasingly used to avoid or delay reducing emissions altogether.

Fair and square - Do your share

The global economy has historically been heavily run on fossil fuels, to benefit only a handful of predominantly Northern countries and (TNCs). The wealth that these nations and TNCs have accumulated is in itself a direct result of colonialist, imperialist, racist, patriarchal practices – the exploitation of ecosystems and peoples across the global South - that sacrifice the many in the name of the few and powerful. This concentrated accumulation of greed and wealth has fuelled (quite literally) the climate crisis, and continues to do so.

The climate crisis is therefore not an equal crisis. Those who have contributed to it the least suffer the most. Equally, the response to address the climate crisis should not be one of equality (everyone must do the same) but rather equity (everyone must do their *fair share*). ¹⁴ Global North countries must do vastly more, and much faster than those with less capacity and little historical responsibility for polluting the Earth's atmosphere. ¹⁵ All countries must rapidly bring down their domestic emissions – i.e., those produced within their own borders – to Real Zero. But developed countries have an ethical obligation to do so faster,

and *in addition* support reductions to Real Zero in less developed, frontline countries as part of their fair share of the global effort to address the climate emergency. ¹⁶ For many developed countries predominantly in the global North that have profited richly from a fossil fuel economy, climate finance responsibilities may amount to even more than the obligation to reduce domestic emissions to Real Zero. Developed countries must own up to their climate responsibility and do the hard work of transforming because it is only fair – and because it is in no-one's interest that the Earth suffer the chaos of runaway climate breakdown.

The role of biodiverse ecosystems in climate action

Climate action requires urgent efforts to protect and restore the planet's biodiverse ecosystems. These act as vital natural "sinks" for carbon dioxide, play a critical role in the Earth's carbon cycle, and regulate atmospheric CO₂ levels. However, accelerating rates of deforestation and degradation mean that land surface areas with thriving, natural ecosystems are shrinking, further accelerating global temperature increase and making local weather patterns more erratic. The amount of land that ecosystems can cover globally – and therefore the CO₂ they can sequester – is limited.

Studies show that biodiverse and natural ecosystems sequester carbon more effectively than tree plantations; are more resilient to drought, fire and flooding; and that the most effective means of protecting ecosystems is through safeguarding the rights of indigenous peoples who are the traditional guardians of their territories.¹⁷

Thus, using ecosystems to reduce emissions can only be effective under an extremely limited set of conditions. Only ecosystems within a country's national boundaries should be included in a nation's accounting, and carbon sequestered by other

^{14.} Joint civil society publication (2015) "Fair shares: A civil society equity review", http://civilsocietyreview.org/report/

^{15.} Climate Equity Reference Calculator http://civilsocietyreview.org/report/

^{16.} Friends of the Earth (web page) "Climate Fair Shares", https://www.foei.org/climate-fair-shares

^{17.} Climate, Land, Ambition & Rights Alliance (CLARA) (2018) "Missing pathways to 1.5°C: the role of the land sector in ambitious climate action", https://www.climatelandambitionrightsalliance.org/report

countries' ecosystems should not be counted. Measures must protect and restore natural domestic ecosystems, and safeguard the rights of indigenous peoples and local communities. And because ecosystems can be cut down or lost to climate change, meaning that their storage potential is temporary and not permanent, carbon sequestered in ecosystems should be counted transparently and separately from industrial emissions. ¹⁸ It is also important to note that for indigenous peoples and local communities these ecosystems are means of survival, and have spiritual and other purposes, far beyond the carbon value in the trees.

Only under these conditions, and if industrial emissions are sufficiently lowered, can the sequestered carbon in these ecosystems realistically help contribute to national emissions being brought down to Real Zero.

We need real targets based on real solutions

Failure to take climate action is now ranked as the greatest threat to humanity. Net zero makes this threat a reality.

It is clear that simply announcing a "net zero by 2050" goal is not a commitment to serious climate action. In fact, in many cases these announcements are made to cover up a lack of real action. Sadly, most "net zero" claims are smokescreens at best, and at worst, deliberate deceptions that contribute to emissions, injustice, racism, patriarchy, colonialism, and capitalism.

The corporations and global North countries that have predominantly caused climate change want us to believe that their "net zero" pledges and unproven, dangerous schemes will save us. Many do recognise the urgency to act – but believe that we are out of time

and that our only hope is strategies such as BECCS and carbon markets, or dangerous geo-engineering approaches, even if they are risky and won't work.

The truth is we *are* out of time, for the half-measures and dangerous distractions that underpin most "net zero" action plans. Our only hope is to quickly implement real people-based solutions that lead to Real Zero emissions. Despite what polluters want us to believe, these real solutions *do* exist and *will* work when implemented to scale. These solutions will not only avoid runaway climate change, but they will restore balance to nature and drastically improve peoples' lives. They include things like:

- Transitioning to 100% renewable energy systems that are democratically controlled, creating new jobs and protecting workers.
- Shifting from industrial agriculture to agroecological practices, ending perverse subsidies and the use of artificial fertilisers.
- Investing in infrastructure for electric mass public transport that is free or heavily subsidised, along with making cities less reliant on cars and more bike-friendly.
- Publicly investing in retrofitting old, inefficient buildings and ensuring efficient heating and cooling systems in all new buildings and houses, through public policies that make them affordable for all.

Simply announcing a "net zero by 2050" goal is not enough to show a serious plan for climate action. Rather, particularly when made by corporations and global North countries, it is a public proclamation of the unethical, irresponsible failure to act. If we are to have a chance of avoiding runaway climate breakdown we need targets that require real action, and that employ real solutions to get us to real zero – fairly - and fast.

^{18.} McLaren et al (2019) "Beyond 'net zero': A case for separate targets for emissions reduction and negative emissions", https://www.frontiersin.org/articles/10.3389/fclim.2019.00004/full

Examples of Real Solutions that get us toward Real Zero (adapted from briefing made in 2019 by DCJ members and others).¹⁹

Real climate solutions

This list illustrates just some examples of real solutions and policy tools countries should use immediately to effect meaningful change, though they will all play out at different time scales (further underscoring the need to implement them immediately and alongside behavioural and consumption changes). Many of these are already implemented at local and national levels. Several of these measures can be easily implemented directly, while others require international cooperation.

Behavior, consumption, and equity

- Drastically target the excessive and wasteful consumption of corporations and wealthy elites.
- Reduce absolute levels of energy use and overall consumption amongst the richer part of the world's population.
- Ensure just transitions across all sectors that ensure workers are able to move into new, secure green jobs.
- Ensure these kinds of real solutions are made possible in developing countries that have done the least to cause climate change, in line with fair shares and Common But Differentiated Responsibilities.

Renewable energy

- Plan for and transform energy systems away from centralized corporate-controlled fossil fuels and other harmful technologies such as nuclear, mega-hydro, and biofuels to clean, safe systems that empower people and communities.
- Implement policies, public investments, and incentives for a just and equitable transition to 100 percent renewable energy (by 2030 for developed countries), that enables energy democracy, creates new job opportunities, encourages distributed renewable energy, promotes local control and community ownership, and protects workers and communities most affected by extractive economies.
- Implement climate finance, technology and capacity schemes under the UNFCCC, and other means to support, in accordance with countries' fair shares, enabling developing countries to rapidly move to 100 percent renewable energy.
- Remove intellectual property rights or other barriers to affordable and accessible environmentally sound technologies.

Fossil fuels

- Create an immediate moratorium on all new fossil fuel extraction.
- Develop treaties and legal agreements for an equitable, rapidly managed decline of existing fossil fuels.
- End producer subsidies promoting fossil fuels.

Education and participation

- Enhance and expand environmental education relating to the sustainable use of resources and climate change in school curricular, to facilitate people's participation in climate action and to develop the real solutions needed to address the climate crisis.
- Ensure access to public information in a manner that is accessible and understandable, and that empowers people to participate in developing climate solutions.

^{19.} LIFE - Education, Sustainability, Equality, WhatNext?, Corporate Accountability, Global Forest Coalition, Don Lehr, Indigenous Environmental Network, & Plataforma Boliviana Frente al Cambio Climatico (2019) "Real Solutions for Real Zero: How article 6.8 of the Paris Agreement can help pave the way for 1.5°C", https://www.corporateaccountability.org/wp-content/uploads/2019/11/Article-6.8-of-the-Paris-Agreement-A-Non-Market-Approach-to-1_5_v4_FINAL.pdf

Food & land

- Leave the ecological integrity of natural ecosystems unharmed and conserve biodiversity.
- Secure land and tenure rights for indigenous peoples and local communities.
- Rapidly transform industrial agriculture towards agroecological practices through proper incentives and policies combined with removal of perverse subsidies, and phase out artificial fertilizers.
- Promote and support ecosystems- and community based solutions to address climate change, including
 agroecological farming systems, and community conservation of biodiverse ecosystems, such as but
 not limited to grasslands and forests. These are community based solutions that protect biodiversity
 and ecosystem integrity while safeguarding food sovereignty and rights, all while providing substantial
 mitigation benefits.
- Vastly scale up ecological restoration to recover natural forests, peatlands, and other degraded ecosystems for both climate and biodiversity, through securing of land and tenure rights for indigenous peoples and local communities, proper public policies, and public financing.
- Embrace community governed forest conservation by passing governmental policies that support security of tenure and access to land, sustainable agriculture, food sovereignty and sustainable livelihood options that respect rights and traditional knowledge of Indigenous peoples and local communities.

Housing

- Create public investment schemes that ensure retrofitting of old inefficient houses and passive heating standards for all new buildings.
- Set new standards for high-efficiency cooling with targeted measures to ensure affordability for all.

Transport

- Invest in infrastructure of electrified, mass public transit, with free or heavily subsidized fares.
- Make cities car free and subsidize bikes and electric bikes.
- Set stringent emissions standards for all new cars with e.g. 10 percent tightening per year. Ban sale of fossil fuel cars (by 2030 in developed countries).
- Ensure major public investments in electric trains.
- Immediately ban expansion of airports, particularly in developed countries.
- Set new standards for high-efficiency cooling with targeted measures to ensure affordability for all.











