**Headline:** Rethinking Climate Action: A New Guideline for Planetary Health

**Teaser:** A new framework for planetary health reveals that our Industrial Age mindset—not human needs—is the real driver of environmental collapse.

By Teresa Coady

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**[Article Body:]**

The [Global Environmental Outlook](https://www.unep.org/geo/) (GEO), compiled by the member states of the United Nations, reports on a range of planetary disasters, including coral reef bleaching, species loss, wildfires, extreme weather events, melting glaciers, and the decline of polar ice. It is all very alarming. We are told that agriculture, power plants, industry, and construction are the cause. Does this mean we stop eating? Must we turn the lights out? Do we stop wearing clothes and living in buildings?

Reading more carefully, we find a deeper line to follow. Yes, agriculture causes harm, but we waste [one-third](https://wwf.panda.org/discover/our_focus/food_practice/food_loss_and_waste/) of the food we produce. Yes, energy production causes massive emissions, but we waste [67 percent](https://www.terrapingeo.com/what-produces-waste-heat) of theelectrical energy we produce. Yes, manufacturing and industry cause harm, but more than 90 percent of what we extract is wasted, with only 7.2 percent of it being recycled and making its way back into the economy. Cutting material consumption by one-third is [key to tackling climate change](https://www.circle-economy.com/news/cutting-material-consumption-by-one-third-is-key-to-tackling-climate-change-study). And yes, construction is devastating, but we are overbuilt globally in both residential and office spaces.

Our centralized Industrial Age mindset has played a significant role in degrading the planet. But it’s not too late. By shifting our thinking and empowering local action, we can begin to heal the Earth.

Today, we live in a decentralized Digital Age, and our population has grown from 1 billion to 7.8 billion since the Industrial Age began. To restore planetary health, we must act locally to address the global impacts of that growth, while finding sustainable ways to support our modern way of life.

As I drove across Norfolk, England, in the fall of 2024, I encountered a protest. Locals were against the installation of the East Pye Solar farm. They said, “We do not need these enormous solar projects impacting farmland, food security, wildlife, communities, and our heritage.” The Island Green Power energy company [claimed the site would power 115,000 homes](https://www.bbc.com/news/articles/cwy95wy83wwo), create jobs, and help the UK meet climate change targets.

This conflict is now being played out globally over wind farms, solar farms, hydroelectric dams, and clean coal plants. At first glance, it may seem we have no choice. We believe that addressing emissions with clean power is essential if we want to mitigate climate change. The truth is that our overly simplistic “[net-zero](https://www.nationofchange.org/2020/07/09/fossil-fuels-net-zero-carbon-emissions-scam-is-something-humanity-doesnt-have-time-for/)” approach is an Industrial Age solution to an Industrial Age problem. As [Einstein once said](https://www.latimes.com/socal/daily-pilot/opinion/tn-dpt-me-0602-gray-20130531-story.html), “We cannot solve our problems with the same thinking we used when we created them.”

The people of East Pye are correct. Although sold as a “net-zero” policy piece, a large solar farm is driven by our financial system, not by its benefits to planetary health. It is capitalized by investors looking for a long-term, reliable return on their investment through energy sales revenue. Mega-projects are aligned with Industrial Age thinking; they are not aligned with our goals for planetary health.

**Guideline for Planetary Health**

This new Guideline for Planetary Health eliminates the “noise,” identifying nine human actions that directly harm our planet, along with the local actions to address them.

**1. Electrical Energy Losses**

Mega projects cause mega-harms to arable lands and freshwater habitats. Centralized power plants lose approximately [70 percent](https://cogeneration.pro/energy-losses-and-inefficiencies-in-the-traditional-power-grid/) of the electrical energy supply due to resistive, capacitive, and inductive losses.

Our centralized electrical supply system was a marvel when it was created, but it is now very inefficient, vulnerable to climate change, outdated, and in need of extensive and expensive repairs. If it is not a dam generating hydroelectric power, it is a fossil-fuel-based (coal) power plant with all its associated atmospheric emissions. To reduce line loss from 70 percent to 10 percent and target “zero” CO2e emissions from the electrical-energy supply requires a shift from a centralized national grid to a local system approach. Renewable electrical energy supply in local smart grids connected by Ultra-High-Voltage (UHV) lines is the solution.

This decentralized system dramatically reduces line losses, eliminates harm to rivers, lakes, and arable lands, increases resilience during extreme weather events, and reduces power-supply CO2e emissions. To achieve this, communities need to support small local hydro, wind, and solar power producers. Neighborhoods also need to encourage renewable-ready buildings with lower energy density demands of < 60 kWh/m2. In this grassroots system based on local action, power goes in both directions. Costs for power are offset or eliminated as we transition from a user-pay to a user-participate model.

**2. Freshwater Losses**

We lose 20-30 percent of potable water in transit from the treatment plant to the consumer. Older systems may lose up to [50 percent of their value](https://publications.gc.ca/collections/collection_2008/nrc-cnrc/NR25-2-40E.pdf).

Leakage is usually the leading cause, but metering errors, firefighting, pipe flushing, and theft also contribute to [freshwater wastage](https://publications.gc.ca/collections/collection_2008/nrc-cnrc/NR25-2-40E.pdf). Freshwater is a precious resource. Ninety-seven percent of global waters are saltwater. Only 3 percent of all planetary water is freshwater, but 2 percent of this freshwater is in the form of ice, leaving only 1 percent available as freshwater in lakes, rivers, and aquifers.

Water treatment systems are essential for ensuring health, but they do not need to be centralized or wasteful. Freshwater can be infinitely recycled after wastewater has been treated to a tertiary level, returning it to a potable condition. Neighborhoods can introduce smaller and local water treatment and supply systems to reduce or eliminate losses in the transmission, distribution, and service connection pipes, joints, and valves.

To address pollutants in freshwater and ultimately in the oceans, [communities can increase municipal wastewater treatment](https://observatory.wiki/The_Southwest_Offers_Blueprints_for_the_Future_of_Wastewater_Reuse) from its current 50 percent to 100 percent. They can upgrade from secondary to tertiary wastewater treatment to eliminate 'forever' pollutants and recycle all freshwater within the neighborhood.

Efficient recycling of freshwater lowers demand for new freshwater supply and supports local efforts to protect rivers, lakes, aquifers, and wetlands. These ecosystems provide habitats for local and migratory species, prevent droughts, and ensure water security. Community efforts to preserve, rather than drain, wetlands and aquifers prevent the [ground they sit on from sinking](https://www.bbc.com/news/resources/idt-14d00552-9211-4dab-89d1-60e34e226e43), and protect communities from sea level rise and extreme weather events.

**3. Food Waste**

We waste 35 percent of the food we produce. Household food waste accounts for 19 percent, while waste from harvesting, transportation, and processing collectively accounts for 16 percent of total waste. Communities can reduce household food waste by promoting community meals and gardens, as well as offering meal planning support and resources to help individuals manage their food waste. Harvesting, transporting, and processing food waste can be reduced by 11 percentage points, from 16 percent to 5 percent, with a return to more locally supplied foods and a shift away from extended supply chains.

The overall goal is to reduce total food wastage from 35 percent to 5 percent by lowering household food wastage from 19 percent to 0 percent and reducing food wastage during harvesting, transportation, and processing from 16 percent to 5 percent. Reducing household food waste is economically beneficial for families. Local efforts to reduce supply chain waste help alleviate poverty, enhance community health, and support local businesses and farmers.

**4. Fossil Fuel Emissions**

Burning gas, oil, and coal has increased CO2e levels to over 400 ppm, contributing to ocean warming and extreme weather events.

In 2023, global primary energy consumption reached an [all-time high of 620 exajoules](https://www.world-energy.org/article/43003.html) (EJ). Humans burned 25 million barrels per day of gasoline, 549 billion cubic meters of liquefied natural gas (LNG), a record 164 EJ of coal, and a record 100 million barrels per day of oil. Fossil fuels supply three types of energy: electrical, transport, and heating.

* **Electrical**: We no longer need to burn fossil fuels to generate electrical energy as communities transition to local renewable sources. In 2023, approximately [74 percent](https://www.reuters.com/business/environment/fossil-fuel-use-emissions-hit-records-2023-report-says-2024-06-19/) of net growth in overall power generation came from renewable sources.
* **Transport**: Fossil-fuel-generated transport energy is also declining with the adoption of electric cars, mopeds, trucks, trains, and buses, as well as the use of lithium-ion and saltwater batteries.
* **Heat**: Communities should transition to 100 percent biofuels for heating energy. Biofuel waste-to-energy infrastructure can recycle 90 percent of a community's municipal waste. Local efforts to efficiently burn waste reduce heating energy emissions and landfill space, while providing free heating or steam power to the community with minimal or zero emissions.

**5. Ecosystem and Species Losses**

We create “grids” which are “islands where species go to die,” and as a result, we destroy eco-corridors.

Nature lives in ribbons: coastlines, forest corridors, rivers and riparian areas, and mountain ranges. We need to identify and protect these heritage eco-corridors when planning our roads, infrastructure, and buildings. A revitalized ecosystem provides high levels of oxygenated and clean air, clean freshwater, and natural sounds and vistas to neighborhoods. A healthy natural neighborhood supports the mental, physical, and emotional health of adults and children. To achieve this, communities need to target 80 percent local land repair by 2050.

The [30x30 initiative](https://30x30initiative.org/) is a worldwide effort to designate 30 percent of Earth’s lands and oceans as protected areas by 2030. This is a good first step towards planetary health that most communities can take through effective municipal land regulations. Neighborhoods should also reintroduce the traditional concept of “stewardship.”

In addition to creating protected areas, sustainably stewarding 50 percent of our lands and waters by 2050 will lead to healthier ecosystems. Healthy forests and meadows are more resistant to wildfires and help balance the atmosphere, reducing and mitigating extreme weather events. Local efforts to restore eco-corridors benefit wildlife and species restoration in forests, wetlands, riparian areas, lakes, seas, and oceans.

**6. Resource Extraction**

Humans have extracted more material from the Earth in the [six years beginning in 2018 than in the entire 20th century](https://www.circle-economy.com/news/cutting-material-consumption-by-one-third-is-key-to-tackling-climate-change-study).

Most of our material goes into buildings, including the furniture, fixtures, and equipment (FF&E) inside them, as well as our transportation and energy infrastructure. Buildings and infrastructure are financed over 25 years, so most are designed to last only that long. Communities should require minimum 100-year structures with 50-year envelopes, 100-year transportation and utilities infrastructure, and 25-year FF&E. Neighborhoods should require new construction to include at least 15 percent recycled materials.

Seventy-five percent of demolition materials should be recycled. Local efforts to understand and control waste in construction materials can reduce our global material consumption by 50 percent. Material waste is closely tied to pollution—landfills and dumping pollute air, land, and water. Communities should close landfills and install waste-to-energy plants, ban the dumping of waste into water, and eliminate all soil runoff into rivers.

**7. Overbuilding**

Contrary to media reports about a housing crisis, it is a fact that from [China](https://realting.com/news/china-s-can-t-fill-the-country-s-millions-of-empty-homes) to [India](https://bilyonaryo.com/2025/04/07/sid-consunji-builds-but-buyers-dont-come-dmci-homes-drowning-in-nearly-p100-billion-in-unsold-inventory/business/), [Toronto](https://economics.td.com/ca-oversupplied-GTA-condo-market) to [Berlin](https://ritzherald.com/berlins-coliving-boom-backfires-oversupply-eroding-trust-and-a-shifting-social-landscape/), [Miami](https://www.cbsnews.com/miami/news/thousands-of-south-florida-condo-owners-forced-to-sell-due-to-rising-costs/) to [Manila](https://tribune.net.ph/2025/02/16/colliers-reports-82-year-absorption-time-for-metro-manilas-condominium-oversupply), and throughout [Southeast Asia](https://www.businesstimes.com.sg/international/asean/south-east-asia-developers-face-condo-oversupply-three-nations), we have seriously overbuilt our housing supply.

China, in particular, is overbuilt. He Keng, a former deputy head of China’s National Bureau of Statistics, stated that the number of vacant homes in the country is so vast that it could [house up to 3 billion people](https://realting.com/news/china-s-can-t-fill-the-country-s-millions-of-empty-homes)—more than twice China’s current population of 1.4 billion. Manila will take [82 years](https://tribune.net.ph/2025/02/16/colliers-reports-82-year-absorption-time-for-metro-manilas-condominium-oversuppl) to absorb the condos it has built.

Writing about the Vancouver condo market in May 2025, Reliance Insurance Agencies, based in British Columbia, [noted](https://reliance.ca/2025/05/27/navigating-vancouvers-challenging-condo-market/) that “the large volume of incoming inventory suggests that oversupply will persist in the near term, maintaining downward pressure on prices and sales volumes.” Indeed, that assessment could easily apply to many parts of the world.

The [office market is also overbuilt](https://www.cnn.com/2023/06/06/business/global-companies-office-space-cuts/index.html) globally.

Our overbuilding is not confined to buildings. Globally, there are [63 million kilometers of road](https://vividmaps.com/worlds-roads/). Remarkably, humans have constructed nearly one kilometer of road for every square kilometer of habitable land worldwide. As noted above, all roads are dead zones, and their grid pattern is a massive barrier to the interconnection of species and eco-corridors. We are becoming a dispersed, rather than centralized, suburban, rather than urban, Digital Age society now. This should be reflected in decentralized development, following a pattern similar to neural networks, rather than relying on artificial grids. We need fewer roads. All roads should be designed to respect [eco-corridors](https://www.oneearth.org/connectivity-ecological-corridors-are-key-to-protecting-biodiversity/), which are essential to protecting biodiversity.

For buildings, and especially housing, communities need to build only what is needed, when it is needed. Governments equate construction with wealth by measuring it as part of an Industrial Age GDP. This encourages the construction of unnecessary new buildings and the premature demolition of old ones. This metric also encourages construction durability of 25 years to match payback periods. Global urban development density is based on the Industrial Age model, which housed workers close to factories. This model, along with its associated roadworks, is obsolete.

Living and working in quality buildings crafted to last, in people-based communities with minimal commuting, is both healthier and happier for individuals and families. Extremely dense cities are often touted as the pinnacle of urban efficiency, but the data tells a different story. As population density increases, health outcomes such as life expectancy tend to decline. Cities like Cairo, Delhi, and Seoul, with densities exceeding 60,000 people per square kilometer, struggle with poor air quality, infrastructure strain, and reduced livability, particularly for vulnerable groups such as children and older adults.

In contrast, cities with suburban or moderate urban densities, such as Sydney, Berlin, and San Diego, not only provide a better quality of life but also boast significantly higher life expectancies. A density target of under 10,000 people per square kilometer, ideally closer to 5,000, creates the conditions for healthier, more sustainable communities.

Equally important is the form that urban development takes. Contrary to popular belief, skyscrapers do not necessarily lead to higher population density. Cities like Paris, characterized by low- and mid-rise buildings, achieve far greater density than vertical cities like Hong Kong. Moreover, skyscrapers are notoriously inefficient in terms of materials and energy, requiring massive inputs of steel, concrete, and mechanical systems. These structures also compromise the human experience, often lacking accessibility to green space and posing challenges for families. If we want cities to thrive, we need to prioritize human-scale development, add parks and infrastructure as we grow, and stop building once we’ve reached a livable density threshold.

**8. Noise Pollution**

Environmental exposure health targets are now exceeded 50 times in some places. Most parts of the globe no longer meet [World Health Organization (WHO) noise level and air quality guidelines](https://www.who.int/Europe/news-room/fact-sheets/item/noise).

Each year, millions of healthy life years are lost to traffic-related noise.

“The European Environmental Agency reports that noise ranks second only to air pollution as the environmental exposure most harmful to health,” [writes](https://magazine.hms.harvard.edu/articles/noise-and-health) Stephanie Dutchen of Harvard Medical School. “Noise pollution drives hearing loss, tinnitus, and can exacerbate cardiovascular disease, type 2 diabetes, sleep disturbances, stress, mental health, and cognition problems, including memory impairment and attention deficits, childhood learning delays, and low birth weight. Scientists are investigating other possible links, including to dementia.”

WHO noise guidelines recommend levels of less than 30 decibels in bedrooms at night, 35 decibels in classrooms during the day, and a maximum of 40 decibels of ambient traffic noise at night. Forty percent of the EU is exposed to traffic noise exceeding 55 decibels, and 20 percent is exposed to traffic noise exceeding 65 decibels.

Noise pollution not only affects us but also negatively impacts other species, especially in the oceans. Underwater noise has a significant impact on the breeding, feeding, and navigation activities of marine species. Nautical communities seeking to mitigate this harm should consult the [NOAA guidelines on marine noise](https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance-other-acoustic-tools). Communities seeking to mitigate urban noise pollution should consult the [WHO guidance on environmental noise](https://www.who.int/Europe/news-room/fact-sheets/item/noise) for advice on setting mitigation targets.

**9. Air Pollution**

As noted by the EU above, air pollution is an even more harmful environmental exposure than noise pollution. After all the wildfires, everyone has now heard of [PM2.5](https://www.epa.gov/pm-pollution/particulate-matter-pm-basics) and the harm it causes us by entering our bloodstream through our lungs. Children are especially vulnerable. Communities might not be able to stop wildfires or volcanoes, but they can provide air quality refuges in shops, schools, and community buildings.

However, in most places for most of the year, the problem is caused by communities failing to control emissions from buildings, transportation, and industry. To meet the [WHO Guidelines](https://www.who.int/publications/i/item/9789240034228), neighborhoods need to reduce their annualized [PM2.5](https://www.stateofglobalair.org/pollution-sources/pm25) to 5 ug/m3. It now exceeds 250 μg/m³ in some parts of the world. The annualized metric is an average, so daily amounts can be higher. Communities also need to reduce annualized tropospheric ozone to 25 parts per billion by volume (ppbv). It is now greater than 100 ppbv in some areas. Air pollution and noise pollution are linked by our Industrial Age approach to development, transportation, and industry.

Every community should be aware of the sources of its local air pollution and commit to reducing this harmful environmental exposure. This can be achieved through local action that addresses each emission source individually, in accordance with the [WHO Global Air Quality Guidelines](https://www.who.int/publications/i/item/9789240034228). This grassroots effort will benefit all generations.

**Bottom-up, Neighborhood-based, Local Actions**

1. **Reduce Electrical Energy Losses**: Reduce line losses from 70 to 10 percent and target a zero-emission electrical energy supply. Prioritize local renewable electrical energy supply in neighborhood smart grids connected by Ultra-High-Voltage (UHV) lines. Support small local hydro, wind, and solar power producers. Build renewable-ready, community-friendly buildings with lower energy density demands of less than 60 kWh/m².
2. **Reduce Freshwater Losses**: Introduce smaller and local water treatment and supply systems to reduce or eliminate neighborhood losses in the transmission, distribution, and service connection pipes, joints, and valves; efficiently recycle local freshwater; preserve, rather than drain, local wetlands and aquifers to protect neighborhoods from sinking, and from sea level rise and extreme weather events.
3. **Reduce Food Loss**: Lower individual household food wastage from 19 percent to 0 percent; reduce local food wastage during harvesting, transportation, and processing from 16 percent to 5 percent.
4. **Reduce Emissions**:
	1. Electrical energy: Target 100 percent renewable local neighborhood energy.
	2. Transportation energy: Transition to 100 percent electric cars, mopeds, trucks, trains, and buses using lithium and salt batteries.
	3. Heat energy: Transition to 100 percent biofuels in local neighborhood waste-to-energy plants.
5. **Protect Ecosystems**: Identify and protect local heritage eco-corridors when planning neighborhood roads, infrastructure, and buildings. Create a low-traffic neighborhood network and eliminate the gridded road pattern. Target 80 percent local land repair by 2050. Designate 30 percent of Earth’s lands and oceans as protected areas by 2030.
6. **Reduce Resource Extraction**: Institute local land development requirements, including a minimum 100-year structure with a 50-year envelope, 100-year neighborhood transportation and utilities infrastructure, and 25-year fixtures, fittings, and equipment (FF&E). Require new local construction to include at least 15 percent recycled materials, and recycle 75 percent of demolition materials locally. Eliminate landfills and pollution of waterways and oceans.
7. **Eliminate Overbuilding**: Utilize digital age GDP metrics, not those of the Industrial Age. Target local neighborhoods with urban/suburban densities of under 10,000/5,000 people per square kilometer. Eliminate the skyscraper building form in all new neighborhoods.
8. **Eliminate Noise Pollution**: Meet the [WHO Guidelines](https://www.who.int/publications/i/item/9789240034228), with a maximum ambient noise level of 40 decibels at the local level on land, and [NOAA guidelines](https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance-other-acoustic-tools) on water.
9. **Eliminate Air Pollution**: Meet the [WHO Guidelines](https://www.who.int/publications/i/item/9789240034228); implement neighborhood policies to reduce annual [PM2.5](https://www.stateofglobalair.org/pollution-sources/pm25) to 5 μg/m³ and tropospheric ozone to 25 parts per billion by volume (ppbv).

**Empowering Communities**

By adopting this new “Guideline for Planetary Health,” communities will be empowered to restore their natural balance by identifying the most impactful actions that neighborhoods can take locally to prevent and reverse harm to the Earth. Beyond improved health and resilience, these actions directly contribute to peace and global well-being. Conflict is often caused by militarized nations “grabbing” water, arable land, and minerals to support the Industrial Age and capitalist finance imperatives.

Understanding how the Digital Age and a global population of 8 billion people will reshape us provides clarity and points us in a new direction. A lasting peace will only come with a natural balance restored and with us relearning how to thrive in harmony with nature. It will not come from federal or global policy, as they are mired in the status quo of the Industrial Age. It will come from local actions based on simple and effective changes. Restoring planetary health will allow all people to live well and meaningfully on the land they have. This call to local action is urgent; the time for postponing is over.