

Exiting Petrochemicals: A Policy Guide for Financial Institutions

As global temperatures rise and governments implement decarbonization policies, the fossil fuel industry is pushing for a major expansion in the production of plastic and petrochemical products.¹ The unchecked expansion of petrochemicals would be devastating for the environment, climate, and human health. While the financial sector could play a crucial role in limiting this damage, it has yet to take action.

Consumers are increasingly aware of the harm caused by petrochemicals and are pushing for smarter, safer alternatives.² **Facing overproduction, a stricter regulatory regime, and emerging litigation, the market for plastic and petrochemicals has become increasingly risky and profits less dependable.**³

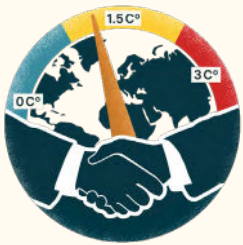
This policy guide explains how financial institutions can consider the impact of petrochemicals as part of their environmental and social risk frameworks and develop policies relevant to their climate goals.

This guide calls on financial institutions to:



Stop Financing Petrochemicals

Immediately prohibit all financing for petrochemicals expansion and adopt absolute greenhouse gas emissions reduction targets (including scope 1, 2, and 3 emissions), leading to the phaseout of financing to the petrochemicals sector.



Require Clients to Adopt Transition Plans

Require that all petrochemical clients develop and publicly disclose transition plans consistent with limiting global warming to 1.5°C above pre-industrial levels and reversing biodiversity loss. These plans should include a timeline for absolute greenhouse gas emission reductions without reliance on offsets, carbon capture, or carbon removal.



Stop Financing Environmental Racism and Injustice

Adopt environmental justice policies to end financing for petrochemical projects in communities of color and low-income communities that are already overburdened with pollution, including regional exclusions for the Gulf South and Ohio River Valley.



Respect Human Rights and Indigenous Sovereignty

End financing for any petrochemical company that repeatedly violates environmental regulations, human rights, or Indigenous Peoples' sovereignty, and their right to Free, Prior, and Informed Consent.



Responsibly Exit the Petrochemical Supply Chain

Rapidly phase out all fossil fuel financing, adopt policies to address the specific harms of plastics, fertilizers, and pesticides, and provide remedy for past harms.

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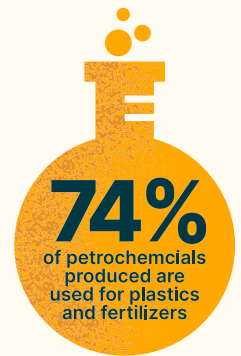
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Background

The US Petrochemicals Boom

Despite a growing number of plastic bans or restrictions internationally, the petrochemicals sector is growing rapidly in the United States. There are plans for more than 120 new or expanded industrial facilities, primarily within the Gulf Coast and Ohio River Valley regions.⁴ These regions already face considerable pollution from existing fossil fuel infrastructure, and there is widespread opposition, with at least 100 different community groups working to halt the buildout.⁵

The petrochemicals sector involves the production and trade of a wide range of industrial feedstocks and finished products derived from fossil fuels.⁶ Plastics and fertilizers account for nearly three-quarters (74 percent) of the petrochemicals produced. Additionally, petrochemicals are present in a wide range of everyday products, from food packaging to clothing, while fossil-fuel-based fertilizers are particularly prevalent in US corn production.⁷



Petrochemicals account for 14 percent of oil and 8 percent of gas consumption globally, as of 2018.⁸ While global consumer trends and a shifting regulatory landscape suggest slowing demand for single-use plastics,⁹ unchecked expansion could position the petrochemical sector as the largest driver of world oil demand by 2050.¹⁰ In the short term, the growth of petrochemicals could offset reductions elsewhere and lock in the continued growth in oil consumption overall.¹¹ **Plastics production alone could double or even triple by 2050 unless further action is taken to restrict the industry's expansion.¹²**

The main driver of US petrochemical expansion is the shale gas boom of the past 15 years.¹³ Shale drilling has produced an abundance of ethane, which is a key feedstock for making plastics.¹⁴ The low cost of ethane is driving new investment in chemical and plastics manufacturing.¹⁵



Investments in the petrochemical sector are likely to suffer with the global overproduction of plastic, especially as consumer attitudes shift away from single-use, disposable plastic and new legislation is introduced to limit its use.¹⁹

With rising global concern about the role of fossil fuels in climate change and the push for an energy transition, fossil fuel companies have increasingly turned to petrochemicals as

a way to continue profiting from oil and gas drilling.¹⁶ For example, ExxonMobil claims that it could offset losses from the transition to electric cars with growth in petrochemicals.¹⁷ **However, the expectations of the fossil fuel and petrochemical sectors are neither realistic nor sustainable.**¹⁸ Investments in the petrochemical sector are likely to suffer with the global overproduction of plastic, especially as consumer attitudes shift away from single-use, disposable plastic and new legislation is introduced to limit its use (see “stranded assets,” below).¹⁹

Petrochemicals’ Impact on the Environment and Human Health

Petrochemicals pollute at every stage of the supply chain, from fossil fuel extraction to refinement and production at petrochemical facilities, to use as plastic consumer products, pesticides, or fertilizers, through to disposal or escape into the environment.²⁰

Fenceline communities face the daily threat of toxic exposure, with potential effects including nervous system impairment, reproductive and developmental problems, cancer, leukemia, and genetic impacts like low birth weight.²¹ For example, Louisiana has some of the highest risk of cancer in the nation.²² In some neighborhoods, the risk of developing cancer is more than three times the national average.²³ Self-reported data shows petrochemical companies expose communities to huge spikes in air pollution, which can last from a few hours to several days or weeks.²⁴ Explosions, chemical fires, and toxic spills from petrochemical facilities are all common.²⁵ Petrochemical workers risk their lives and health in the workplace, with chemical exposure “likely to be frequent but also underreported, insufficiently monitored and lacking clear documentation of associations with health effects.”²⁶



Photo: Ivan Radic

Petrochemicals pollute water in lakes, ponds, streams, oceans, and groundwater through contaminated wastewater from the production process. Most of this pollution is happening near communities of color and low-wealth communities, including significant impacts on fishing and Indigenous communities in Southwest Louisiana and Southeast Texas.²⁷ For example, Formosa Plastics Group was fined \$50 million in 2019 for illegally discharging plastic pollution into Texas waterways and was ordered to prevent all future discharges of plastic pellets from its Texas plant.²⁸ As of June 2024, Formosa Plastics faced a further \$19.2 million in fines for 639 additional violations.²⁹ There is growing pressure for tougher regulation like the Plastic Pellet Free Waters Act, introduced in the US Senate and House of Representatives with bipartisan support.³⁰

Transporting petrochemicals is also a dangerous business. The petrochemical disaster that unfolded in 2023 in East Palestine, Ohio followed the derailment of a train carrying toxic petrochemicals outside a small town. The derailed train released a cloud of toxic chemicals into the air, polluted local waterways, displaced local residents, and exposed nearby communities to potentially severe long-term health effects.³¹ The transport of fossil fuels and petrochemical feedstocks through pipelines results in spills, fires, and leaks, with the potential to cause irreversible environmental destruction, as well as significant health risks that disproportionately burden Indigenous people and communities of color.³²

Chemicals in Plastic

There are
16,000
chemicals found
in plastic

More than
4,200
are hazardous to human
health

Health risks include:

- cancer
- reproductive harm
- endocrine disruption



More than
50%
of those chemicals
lacked information
about their potential
hazards

More broadly, **the toxicity of and pollution caused by the petrochemical supply chain is clear.** One 2024 report estimated that more than 16,000 chemicals are used or present in plastics.³³ The same report found that more than half of these chemicals lacked information about their potential hazards, while close to three-quarters (73 percent) of the 5,800 chemicals with available information were considered hazardous.³⁴ There is a growing body of scientific evidence demonstrating the negative impacts of these hazardous chemicals on human and ecosystem health.³⁵ One of the most notable of these classes of chemicals, per- and polyfluoroalkyl substances (PFAS), commonly known as ‘forever chemicals’ for their longevity in the environment, are endocrine disruptors linked to cancer and reproductive harm.³⁶

Microplastics are ubiquitous and contaminate our air, soil, water supplies, food chain, and our bodies.³⁷ Tiny plastic particles have been found in blood, lungs, hearts, and brain tissue.³⁸ They are also present in reproductive organs, including uteri, testes, and penises, and have also been found in breast milk and in every human placenta and semen sample tested—resulting in a legacy of contamination that is passed down through generations.³⁹ Despite the plastics industry's extreme lack of transparency, which has delayed a full assessment of impacts, there is now substantial and growing evidence of the harm microplastics cause to human health and the environment.⁴⁰

Plastic pollution is extremely dangerous to wildlife, too, with around 1 million marine birds and at least 100,000 marine animals killed by plastic ingestion every year. More than 90 percent of all birds and fish are believed to have plastic particles in their stomach.⁴¹ **Without action, there will be more plastics in the oceans than fish (by weight) by 2050.**⁴²

Furthermore, the overuse of fossil-fuel-based fertilizers has profound effects on the health of workers and communities living next to petrochemical facilities or the fields where these agrochemicals are used.⁴³ Farmworkers in the US, a majority (78 percent) of whom self-identify as Hispanic, face exposure to a number of serious chronic diseases, including cancer, asthma, diabetes, Parkinson's disease, leukemia, and cognitive impairment.⁴⁴

Much of the nitrogen and phosphorus from fertilizer application ends up in waterways, causing algal blooms that deplete oxygen and lead to the formation of 'dead zones.'⁴⁵ These include a huge dead zone near the mouth of the Mississippi River in the Gulf of Mexico that extends over 5,000 square miles on average.⁴⁶ The leaching of fertilizer into groundwater also pollutes the drinking water supplies of many rural families.⁴⁷

Agrochemicals degrade and pollute the soil. Excess nitrogen can lead to soil salinity and acidification and can decimate microbial communities that are essential for soil health.⁴⁸ Agrochemicals are also a major source of microplastic pollution in soils, as many fertilizers and pesticides are deliberately coated with microplastics to allow for their so-called "controlled release."⁴⁹

The use of fossil-fuel-based fertilizers (particularly urea) also contributes to air pollution, with the release of gaseous ammonia posing risks to ecosystems and human health.⁵⁰ The overuse of pesticides can have devastating impacts on biodiversity and human health, ranging from rapid declines in insect populations to asthma and cancers in humans.⁵¹ Avoiding these impacts requires a systematic transformation away from industrial agriculture towards climate-resilient agroecology, enhancing food sovereignty while sustaining and restoring ecosystems.⁵²

Environmental Racism

Many of the planned petrochemical facilities in the US are slated for communities of color and low-income communities that are already overburdened by pollution.⁵³ **The concentration of petrochemical facilities in these communities forms part of a long history of environmental racism characterized by discriminatory environmental policies and practices.**⁵⁴

The practice of ‘redlining’ saw financial services withheld from Black, Hispanic, and Asian communities, contributing to segregation, racial and economic inequalities in housing, and generational disinvestment that persists today. Redlining also informed local government land use decisions that placed polluting facilities in and near neighborhoods disproportionately made up of racial minority groups.⁵⁵ Research has consistently found that pollution and public health hazards disproportionately impact Black, Brown, Indigenous, and poor communities, including those that were historically redlined.⁵⁶ This is rooted in long histories of oppression and dispossession.⁵⁷



Photo: Break Free From Plastic

In the US, communities of color have been disproportionately exposed to public health risks from polluting industries.⁵⁸ In fact, residents who live in the vulnerability zone or fenceline zone near chemical facilities are disproportionately Black or Latino, have higher rates of poverty than the US as a whole, and have lower housing values, incomes, and education levels than the national average.⁵⁹ Analysis based on data from the US Environmental Protection Agency's (EPA) Toxic Release Inventory suggests that petrochemical manufacturing has a disproportionate impact on low-income and communities of color, with racial minorities (including Black and Latino people) making up 66 percent of the residents living on the fence line of these facilities while accounting for 39 percent of the total US population.⁶⁰

The EPA has acknowledged that historically marginalized communities face disproportionate exposures to pollution and environmental degradation that are exacerbated by racial and economic injustices. The agency is developing recommendations to address these cumulative impacts.⁶¹ In 2024, the EPA also finalized new rules that restrict hazardous air pollutants and declared a willingness to take on racist environmental policy at the state level.⁶²

The petrochemicals industry, and the fossil fuel economy more broadly, have been central to the creation of ‘sacrifice zones’—places where concentrated industrial activity causes elevated pollution levels and exposes local populations to significant health risks.⁶³ The majority of petrochemical facilities in the US are located in sacrifice zones in Texas, Louisiana, and the Ohio River Valley.



As we face the threat of unchecked petrochemical expansion, it's crucial to recognize that this industry is not just an environmental issue, but these are matters of life and death! The communities most impacted by these developments, often low-income and communities of color, bear the brunt of pollution and health risks. We must hold financial institutions accountable for their role in financing these harmful projects. It's time to stop funding environmental racism and start investing in a cleaner, safer future for everyone.

Our communities are not dumping grounds for the petrochemical industry. We deserve clean air, safe water, and the right to live without fear of toxic exposure. We must stand united against this environmental injustice."

Sharon Lavigne, LA

Founder and Executive Director, RISE St. James



#BreakFreeFromPlastic

Specifically, the upper Ohio River Valley—where a fracking boom has been followed by the buildout of several petrochemicals and plastics facilities—faces severe environmental and public health challenges following a century of industrial pollution.⁶⁴ For example, one of West Virginia’s only two majority-Black census tracts faces an excess cancer risk from industrial air pollution that is 36 times the level the EPA considers acceptable from a nearby petrochemical plant.⁶⁵

Additionally, the Houston Ship Channel is surrounded by more than 600 petrochemical plants along a 52-mile waterway, resulting in some of the worst air quality in the US, which disproportionately affects people of color and low-income households.⁶⁶ In Port Arthur, a short distance along the Texas coastline from Houston, the largest oil refinery in the US and a cluster of petrochemicals plants cast their shadow over a predominantly African American community where, despite promises of economic development, the unemployment rate is twice the national and state averages, while cancer rates are 40 percent higher than the Texas average.⁶⁷

Petrochemical Hotspots in the US



1 Houston Ship Channel
Largest concentration of petrochemical plants in the US with 600 facilities

2 Louisiana’s Cancer Alley
200 facilities and some of the highest risk of cancer in the US

3 Ohio River Valley
Fenceline cancer risk 36x EPA accepted levels in majority Black WV census tract

In Louisiana, an eighty-five-mile stretch of the Mississippi River is commonly referred to as Cancer Alley, a reference to the widespread health and air pollution problems affecting the predominantly Black and low-income residents living on the front lines of approximately 200 fossil fuel and petrochemical plants. **Nearly all Cancer Alley census tracts are in the top 5% of cancer risk nationally.**⁶⁸

United Nations human rights experts have called for a halt to the construction of new petrochemicals plants in Cancer Alley, including Formosa Plastics' proposed Sunshine Project.⁶⁹ In a statement, the UN experts state that "this form of environmental racism poses serious and disproportionate threats to the enjoyment of several human rights of its largely African American residents, including the right to equality and non-discrimination, the right to life, the right to health, right to an adequate standard of living and cultural rights."⁷⁰



Port Arthur, TX / Photo: Carol M. Highsmith

More broadly, the UN Guiding Principles on Business and Human Rights (UNGPs) detail the responsibility of all businesses to respect human rights and to provide remedy for any harms caused by their activities.⁷¹ As shown in this report, the production, use, and disposal of petrochemicals causes harm not only to public health but also to the environment and the climate. To meet their responsibilities under international law and the UNGPs, it is likely financial institutions will need to remedy the past harms caused by petrochemicals, which may also include an end to financing for petrochemicals.

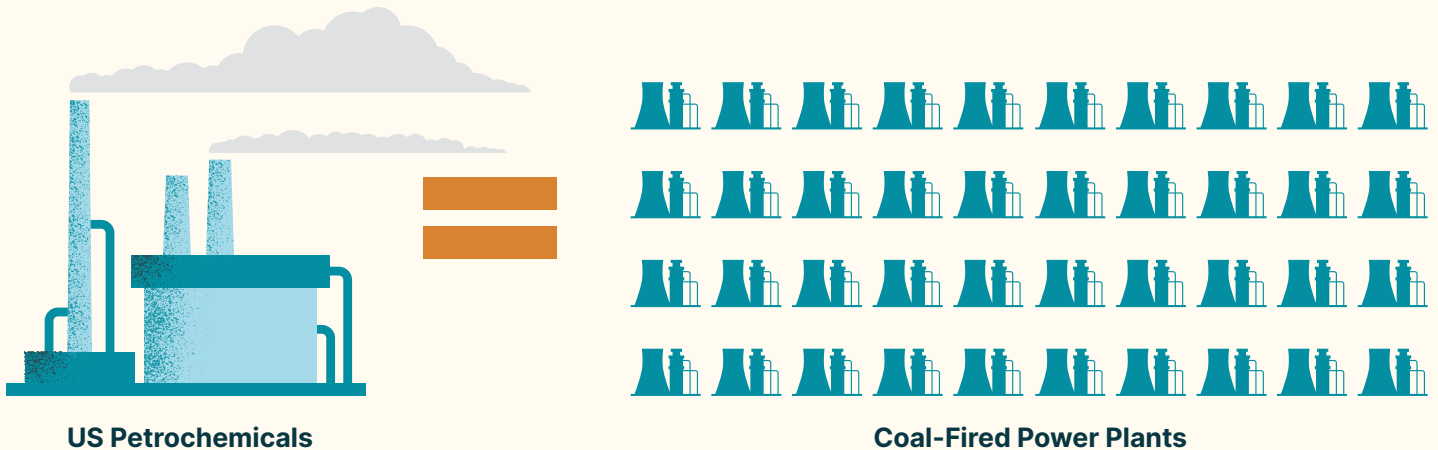
Remedying harm has two parts: process and outcome. First, businesses must provide a process for affected communities to file a grievance.⁷² Then, businesses need to actually provide remedy for the harms they have contributed to.⁷³ Remedy will depend on the specific circumstances and desires of a community.⁷⁴ To remedy the harms of petrochemicals, financial institutions may need to restore waterways and lands, compensate for losses, cover health care costs, offer a public apology, and change policies or practices, among other possible remedies.

In one notable example, Australia's ANZ Bank, in 2021, became the first large commercial bank to adopt a Human Rights Grievance Mechanism to evaluate complaints related to human rights impacts associated with its institutional or corporate lending customers.⁷⁵ However, in a study of 50 of the largest banks in 2022, not a single bank showed adequate implementation of the UNGPs.⁷⁶

The Climate Impacts of Petrochemicals

The US petrochemicals sector already emits 172 million metric tons of carbon dioxide equivalent (MtCO₂e) a year, equivalent to more than 40 coal-fired power plants.⁷⁷

US Petrochemicals Emissions Equal to 40 Coal-Fired Power Plants



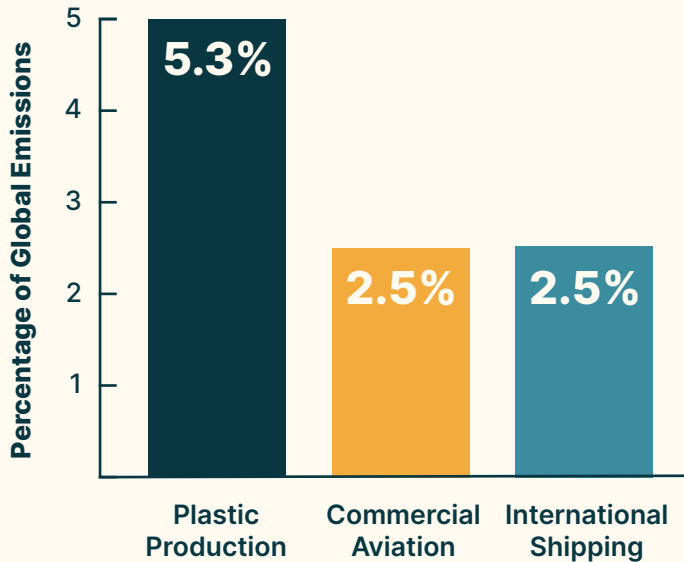
The expansion of petrochemicals threatens to cancel out progress on solving the climate crisis, with projections by the International Energy Agency suggesting that they could become the largest driver of world oil demand.⁷⁸ By contrast, a recent study on transition pathways suggests that all new fossil-based petrochemical capacity globally should be stopped by 2025 or, at the latest, 2023 (depending on what assumptions are used) if we are to limit global temperature rises to 1.5°C above pre-industrial levels.⁷⁹



If production grows in line with industry plans, GHG emissions from primary plastic production would account for up to 31 percent of the remaining carbon budget for limiting global temperature rises to 1.5°C above pre-industrial levels.⁸¹

The climate impact of plastics is particularly stark. The global production of primary plastics generated an estimated 5.3 percent of total global greenhouse gas (GHG) emissions in 2019, more than the combined total for commercial aviation and international shipping.⁸⁰ With planned industry growth, emissions from plastic production could double or even triple by 2050. If that were to happen, GHG emissions from primary plastic production would account for up to 31 percent of the remaining carbon budget for limiting global temperature rises to 1.5°C above pre-industrial levels.⁸¹

Plastic Production Emits More Than Commercial Aviation and International Shipping



Synthetic nitrogen fertilizers derived from fossil fuels (“fossil fertilizers”) are also a major source of GHG emissions, with their production and use contributing an estimated 2 to 5 percent of global emissions.⁸² The production of ammonia (the feedstock for nitrogen fertilizers) produces carbon dioxide as well as methane, a powerful greenhouse gas.⁸³ A significant share of GHG emissions also occur once producers apply fossil fertilizers to the soil. According to the Intergovernmental Panel on Climate Change, only 50 percent of the nitrogen applied to agricultural soils is taken up by crops.⁸⁴ The rest of the nitrogen ends up polluting soils and waterways or is emitted into the

atmosphere as nitrous oxide, a greenhouse gas that is 265 times more potent than carbon dioxide.⁸⁵ Additionally, these fertilizers contribute to the loss of soil organic matter, which is an important carbon sink.⁸⁶

In summary, the unchecked financing of the petrochemicals sector and its products threatens to undermine financial institutions’ ability to align their financing with targets set by the Paris Agreement and the Kunming-Montreal Global Biodiversity Framework.

Stranded Assets

Despite industry predictions that the petrochemicals sector will continue to expand, there is evidence to suggest that the production of plastics will not be as profitable as originally projected.⁸⁷ There is also evidence that demand for plastics has peaked in Organisation for Economic Co-operation and Development (OECD) countries, which account for almost half of global plastic demand.⁸⁸

There is already a global overproduction of petrochemicals as supply continues to outpace demand.⁸⁹ This economic vulnerability could be exacerbated by legislation domestically and abroad (affecting exports), as well as by the global plastics treaty that is currently under negotiation.⁹⁰ Every region of the world has seen countries move to ban, restrict, and phase out many kinds of single-use plastic products.⁹¹ Between 2012 and 2022, 731 plastic pollution

policies were introduced worldwide.⁹² Carbon Tracker has estimated that new targets, taxes, rules, and regulations could help reduce demand for plastics and result in up to US\$400 billion in stranded assets locked up in the petrochemicals sector.⁹³



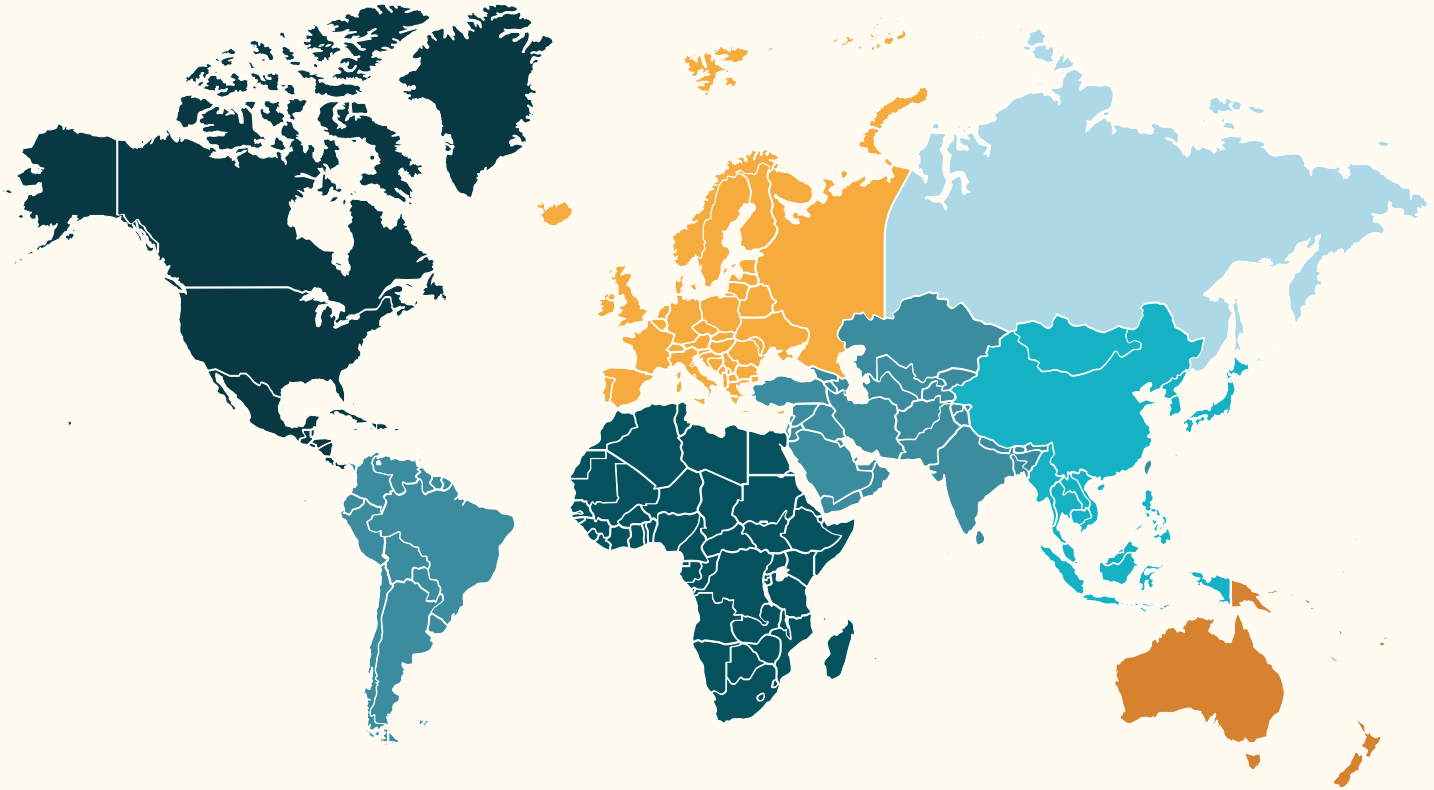
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The petrochemical sector's expansion plans fly in the face of climate action. But climate change also poses risks to these industries themselves. Extreme weather and other climate change impacts pose direct 'physical risks' to industrial facilities and infrastructure, while there are also a series of 'transition risks' posed by the policy, legal, market, and social changes associated with the shift to a low-carbon, fossil-free economy.⁹⁴



Nueces Bay, Corpus Christi / Photo: Carol M. Highsmith

Global Plastic Bans and Restrictions



NORTH AMERICA

Plastic restrictions, bans, and phaseouts in Mexico City, Canada, and the US, including in 10 states and more than 200 counties and municipalities

SOUTH AMERICA

27 of 33 countries in Latin America and the Caribbean have passed laws to restrict and reduce single-use plastic, including a ban in Colombia

EUROPE

Ban on single-use plastic and expanded polystyrene containers in all European Union member states and the United Kingdom

AFRICA

Laws banning plastics have passed in 34 out of 54 countries, including in Kenya and Rwanda

SOUTH ASIA

Single-use plastic bags banned in Bangladesh; 19 single-use products banned in India

SOUTHEAST ASIA + EAST ASIA

Phaseout and restrictions on single-use plastic products in China and Indonesia, waste import ban in Thailand

OCEANIA

Multiple states in Australia have introduced single-use plastic bans for various items, and New Zealand has banned plastic microbeads in cosmetics and personal care items

Sources: Solinatra (2023)

Petrochemical industry exposure to climate-related financial risks

Risk type ⁹⁵	Potential risk	Possible financial implications
<p>Physical</p>	<p>Petrochemical expansion is proposed in areas that are highly vulnerable to climate change. For example, production facilities in Louisiana are exposed to increasingly frequent and intense floods and hurricanes.⁹⁶</p>	<ul style="list-style-type: none"> • Reduced revenue from decreased production capacity (e.g., plant shutdowns, transport difficulties, supply chain interruptions). • Increased capital costs (e.g., damage to facilities, higher construction costs). • Increased insurance premiums and reduced availability of insurance in 'high-risk' locations. • Write-offs and early retirement of assets (e.g., damaged production facilities and those in 'high-risk' locations).
<p>Policy</p>	<p>More than 700 new plastic pollution policies were introduced globally in the past decade and ever more plastics legislation is forthcoming, as is a new global plastics treaty.⁹⁷ For example, the EPA has a roadmap for regulating PFAS 'forever' chemicals.⁹⁸ There is also growing pressure to strengthen emissions standards on air and water pollution, as well as to further limit carbon emissions from large plants.⁹⁹</p>	<ul style="list-style-type: none"> • Increased operating costs to meet new standards. • Capital depreciation or write-off of existing assets as policies require equipment to be retired or replaced. • Significant possibility that new and expanded plants become 'stranded assets.' • New circular economy rules such as Extended Producer Responsibility (EPR), which assign producers financial and/or operational responsibility for the end-of-life of products, or container take-back systems, place additional costs on plastics companies.¹⁰⁰

Petrochemical industry exposure to climate-related financial risks

Risk type	Potential risk	Possible financial implications
<p>Legal</p>	<p>Petrochemical companies face increasing risks of litigation for their failures to address the impacts of climate change and plastic pollution. For example, the state of New York and the city of Baltimore have filed cases against corporations implicated in plastic pollution, while the state of California has an active investigation into plastic producers.¹⁰¹</p> <p>New plant construction could be subject to permitting challenges, such as the ongoing legal battles concerning the air and wetlands permits for the Formosa Plastics Sunshine Project.¹⁰²</p>	<ul style="list-style-type: none"> • Increased costs of litigation and fines.¹⁰³ • Reputational damage from litigation and fines. • Construction delays due to permitting challenges.
<p>Technology</p>	<p>Technological improvements may lead to old systems becoming redundant. However, there are also costs associated with transitioning to new technologies, and not all of these technologies will be successful or publicly accepted. For example, Carbon Capture and Storage and ‘chemical recycling’ are controversial, failing methods that have not shown themselves to be economically viable.¹⁰⁴</p>	<ul style="list-style-type: none"> • Write-offs and early retirement of existing assets. • Research and development (R&D) expenditure on new and alternative technologies. • Capital investments in technology development. • Reduced revenue where controversies surrounding new technologies lead to loss of anticipated subsidies or permitting delays.

Petrochemical industry exposure to climate-related financial risks

Risk type	Potential risk	Possible financial implications
Market	<p>Ambitious petrochemical expansion plans, regulatory pressure, and changing public perceptions (on single-use plastics in particular) are leading to significant over-supply.¹⁰⁵</p>	<ul style="list-style-type: none"> • Reduced demand for single-use plastics and other petrochemical products due to shifts in consumer preferences. • Credit rating downgrades as a result of failure to prepare for a transition to clean energy and new consumption patterns. This is already a risk for a number of fossil fuel and petrochemical producers.¹⁰⁶ • Change in revenue mix and sources, resulting in decreased revenues.
Reputation	<p>Changing consumer and community perceptions as petrochemicals are recognized to be unsustainable, causing untold damage to the climate, environment, and human health. This can manifest in the form of shifting consumer preferences, community opposition, divestment campaigns and other forms of activism.</p> <p>A survey of 195 oil and gas industry representatives found that 83 percent of those participants saw environmental and local opposition as ‘Very Important’ or ‘Important’ challenges to the expansion of pipeline capacity.¹⁰⁷</p>	<ul style="list-style-type: none"> • Reduced revenue from decreased demand for plastics and other products derived from petrochemicals. • Reduced revenue from decreased production capacity (e.g., delayed planning approvals). • Reduction in capital availability and reduced availability of other financial services (e.g., insurance).

Policy Guide

Scope

The policies presented here are intended to cover the full extent of financial institutions' engagement with the petrochemicals industry and related sectors.¹⁰⁸ This includes all lending, underwriting (of bonds and share issuances), investment (bondholding, shareholding), insurance, and advisory services. Policies should apply to both existing and new clients, as well as both project financing and general corporate financing.

Policies should be broadly applicable across whole corporate groups.¹⁰⁹ Petrochemicals are produced and traded by companies that often have business interests extending across several sectors. **These policies should apply to any company that receives five percent or more of its revenues from its petrochemicals business.**

For the purposes of this guidance, the 'petrochemicals sector' involves the production, processing, storage, trade, or distribution of chemical products derived from petroleum, including plastics, fertilizers, detergents, solvents, lubricants, synthetic fibers, pesticides, and explosives. 'Petrochemical facilities' covers any manufacturing plant involved in the processing of these products. 'Associated infrastructure' includes desalination plants, pipelines, fractionators, storage facilities, hydrogen production, chemical recycling plants, ports, and export/import facilities (e.g., Natural Gas Liquids (NGLs) export terminals).

Alongside guidance on petrochemicals, financial institutions should also put in place policies relating to the producers of petrochemical inputs (e.g., ethane gas) and the end products produced from petrochemicals.

Petrochemicals

Financial institutions should:

- **Stop financing petrochemical expansion.** No financing should be provided for the expansion of petrochemicals facilities or to companies expanding petrochemicals production capacity.¹¹⁰ This exclusion should also apply to the construction and/or operation of new, additional infrastructure that predominantly serves the petrochemicals supply chain (e.g., desalination plants, pipelines, ports, and export/import facilities), as well as to pyrolysis, "chemical recycling," and plastic conversion capacity.

- **Adopt absolute emissions reduction targets.** Emissions targets (including scope 1, 2, and 3 emissions) should be set for financing to the petrochemicals sector consistent with keeping global warming below 1.5°C. These should include science-based short-, medium-, and long-term absolute emissions reduction targets for the petrochemicals sector. Targets should be publicly disclosed, with appropriate monitoring, third-party auditing, and enforcement procedures put in place.
- **Require all petrochemicals clients to develop transition plans and withdraw financing for those that do not.** Transition plans should be consistent with keeping global warming below 1.5°C, eliminating fossil feedstocks, and halting and reversing biodiversity loss. Financial institutions should require that all of their clients with any exposure to the petrochemicals sector publish robust transition plans that set out a timeline for eliminating fossil feedstocks and making absolute greenhouse gas emissions reductions without reliance on offsets, carbon capture, or carbon removal technologies. Financial institutions should withdraw financing for clients who fail to provide credible plans aligned with a 1.5°C climate goal. Transition plans should be consistent with the Kunming-Montreal Global Biodiversity Framework, which requires a reduction in pollution impacts to levels that are not harmful to biodiversity and ecosystems and should ensure that no direct or indirect financing is provided to new, existing, or expanded petrochemical facilities within Banks and Biodiversity No Go Areas.¹¹¹

Environmental Justice, Human Rights, and Indigenous Peoples' Rights

Financial institutions should:

- **Adopt environmental justice policies and regional exclusions.** Equity screening should target the reduction of air, water, and soil pollution in communities exposed to significant health and environmental risks due to concentrated industrial activity (often referred to as 'sacrifice zones'), with regional exclusion policies on financing petrochemicals and related infrastructure, including in the Gulf South and Ohio River Valley. Screenings should also ensure robust monitoring and enforcement measures are in place.
- **Require cumulative impact assessments** to ensure that financing contributes to the reduction of environmental and health impacts in communities with environmental justice concerns, taking account of historical drivers of inequitable environmental burdens such as redlining and urban renewal, as well as the inequitable impacts of climate change.



Photo: RISE St. James

- **Stop financing human rights violations.** End financing for any company that repeatedly violates or has proposed projects likely to violate human rights, especially for Black, Indigenous, people of color (BIPOC), and low-income communities. Human rights obligations should be consistent with the UN Guiding Principles on Business and Human Rights. Human rights violations should be assessed through an intersectional lens and be informed by research on cumulative impacts.
- **Protect Indigenous Peoples' sovereignty.** Any projects or companies that fail to respect Indigenous Peoples' sovereignty should be defunded. All financing decisions should respect Indigenous Peoples' Free, Prior, and Informed Consent as articulated in the UN Declaration on the Rights of Indigenous Peoples.

- **Respect the right to a healthy environment and protect livelihoods.** Ensure that all financing decisions honor frontline communities and Indigenous Peoples' right to their livelihoods and the right to a healthy environment and avoid negative consequences sustained as a result of financed activities, including ecosystem degradation, disruption of local economies, and loss and damages sustained as a result of climate change. Redress measures, including compensation, should be put in place where negative consequences have occurred.



Photo: Diane Wilson

- **Redress environmental racism.** Financial institutions should acknowledge their role in perpetuating environmental racism and engage with community-managed restorative justice and reparations programs, which may include:
 - investments in free and affordable public health infrastructure
 - debt relief for affected municipalities, regions, or cities, and/or paying off the medical debts of those suffering from the effects of petrochemicals, including fertilizers and pesticides
 - environmental restoration
- **Establish inclusive governance and accountability structures** that bring together executive leadership and frontline leaders to assess progress towards environmental, health, and climate goals for petrochemicals and the broader fossil fuel sector. As part of this process, the executive leadership of financial institutions should visit and meet with frontline leaders in regions affected by their investments in petrochemical infrastructure.
- **Align with the Equitable Bank Standards**, which include guidance on governance, lending and investment, and operational practices that advance racial equality and inclusion.¹¹²



I'm from a fourth-generation fishing family in an area on the Texas Gulf Coast that historically provided more shrimp exports than anywhere in the United States. Now, the fish houses, boats, and fishermen are gone. What remains and is struggling hard to survive are desperate communities with their main streets boarded up.

In my community, if a fisherman dares to retain his identity, he has to buy his ice at Walmart and sell his shrimp from the back end of his truck at a price that hasn't changed in twenty years. Yesterday—on the opening day of shrimp season and formerly a day of celebration—two local shrimpers lost their nets, rigging, and catch on the chemical barges and dredging operations plying the plastic trade route. Unapologetically, they tell us, 'This is progress.'

Diane Wilson, Point Comfort, TX
San Antonio Bay Waterkeeper



Photo: Goldman Environmental Prize

Environmental, Social, and Health Standards

Within the context of a phaseout of petrochemical financing, financial institutions should:

- **Apply additional due diligence requirements to petrochemicals financing**, given the inherent risk for negative social and environmental impacts (air, water, soil pollution, and associated health risks). Investors should evaluate potential clients' human rights and environmental track record, transparency, and stakeholder engagement. In particular, environmental impact reporting should consider cumulative effects on communities sited near multiple industrial facilities, as limiting impact evaluation to a single site does not accurately reflect the true health impacts for communities.
- **Not finance serial offenders.** Financial institutions should not engage in business relationships with companies that have a clear track record of non-compliance with environmental regulations, human rights, occupational health and safety requirements, or concealing the hazards of their products.

Financial institutions should require clients to:

- **Implement robust environmental and social management systems** and related policies addressing air, water, and soil pollution, impacts on biodiversity, community health, as well as safety for handling, transportation, and storage of chemicals.
- **Stop the release of microplastics.** Clients should adopt specific policies designed to prevent the leakage of pellets ('nurdles') and other releases of microplastics into the environment, and swiftly align with international best practice regulations as these emerge.
- **Engage in ongoing due diligence**, including independent health and environmental monitoring, in addition to human rights and environmental impact assessments.
- **Improve environmental, health, and safety management** consistent with global best practices in this sector, including:
 - The European Union's Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) regulation
 - The UN Environment Programme Global Framework on Chemicals
 - The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade
 - World Bank/IFC Environmental, Health, and Safety (EHS) Guidelines for Chemicals
- **Regularly disclose their top five health and safety risks**, affected populations, and mitigations taken to meet existing US Federal OSHA Process Safety Management

requirements for their supply chain. This should be checked against top risks outlined in their EPA Risk Management Plans and any Chemical Safety Board incident mitigation recommendations for processes related to their supply chains.

- **Demonstrate consistent compliance with US Occupational Health and Safety Administration (OSHA) standards**, all relevant International Labour Organization (ILO) standards on occupational safety and health, and the ISO 45001 Occupational Health and Safety Management Systems standard.

Plastics

Financial institutions should:

- **Stop financing virgin plastics.** Exclude financing for companies that build new plants using virgin feedstock.
- **Prohibit financing for ‘chemical recycling.’** Exclude financing for any company supporting ‘chemical recycling’ or ‘advanced recycling,’ greenwashing terms for processes like pyrolysis and gasification that largely involve superheating chemicals and plastic waste, which have major climate, public health, and environmental justice impacts.
- **Implement the new global plastics treaty.** Publicly support an ambitious, internationally legally binding instrument for ending plastic pollution and act rapidly to implement a new global plastics treaty once it has been adopted.



Photo: Ivan Radic

Financial institutions should require clients to:

- **Phase out single-use plastics.** Establish and publicly disclose targets for a rapid decrease in the production, use, and sale of single-use plastics, with measurable and time-bound annual goals and action plans. These should, at minimum, seek to eliminate the production, use, and sale of single-use plastics by 2030.¹¹³ Such criteria should be required of companies across a number of business sectors, notably those from the fast-moving consumer goods and food industries (including box stores and supermarkets), as well as petrochemical producers.

- **Identify and eliminate the production and use of hazardous chemicals of concern**, including toxic polymers and additives in plastic, and publicly report on their progress in doing so.
- **Set plastics reduction targets** with measurable and time-bound goals for the reduced production, use, and sale of all plastics alongside increases in the reusability of packaging products.
- **Establish transition plans** with clear timescales to limit plastic production and eliminate unnecessary and single-use applications and packaging altogether. This should be subject to external verification.
- **Increase transparency** across the entire plastics supply chain, including,
 - Annual progress reports on reduction targets for the production, use, and sale of plastics.
 - Disclosures that provide quantifiable metrics and use comparable plastic risk evaluation indicators, such as the SASB Plastics Risks and Opportunities in Chemicals Industry (which is now overseen by the International Sustainability Standards Board) or the CDP plastics disclosure questionnaire, which informs the recommendations of the Taskforce on Nature-related Financial Disclosures (TNFD).¹¹⁴
 - Full disclosure requirements for chemicals used in the production and manufacturing of plastics.



Photo: Mark Fisher

Fertilizers and Pesticides

Financial institutions should:

- **Stop financing fossil-fuel-derived fertilizers.** Exclude financing for companies that build new plants using fossil fuel feedstock or fossil-fuel-derived feedstock (such as ammonia) for the production of nitrogen fertilizers.
- **Transition financing away from industrial agriculture** (including industrial livestock production) and towards support for more sustainable food systems and farming models that minimize or eliminate reliance on agrochemicals, including agroecology and organic agriculture.
- **Adopt science-based impact assessment approaches** in line with the Taskforce on Nature-related Finance Disclosures (TNFD) to understand how financing impacts

biodiversity, and develop strategies to address these impacts. Criteria should be set for clients' rapid transition to the production of nitrogen fertilizers with improved characteristics (less denitrification and leaching).

- **Require increased transparency across the whole fertilizer supply chain**, including costs caused by nitrogen pollution and pesticides impacts, across all business sectors.
- **Engage with policymakers** for improved regulation of the fertilizer and pesticide industries, including a just transition framework providing support to small and family farmers to drastically reduce their reliance on fossil-fuel-based fertilizers and pesticides in line with global climate and biodiversity goals.

Financial institutions should require clients to:

- **Establish transition plans** that rapidly reduce their reliance on fossil-fuel-based fertilizers and pesticides. This should include setting and disclosing short-, medium-, and long-term targets consistent with a 1.5°C climate goal and the Kunming-Montreal Global Biodiversity Framework (target 7), which calls for reducing the overall risk from pesticides by half by 2030. Transition plans should be required across the entire supply chain, from agrochemical companies to supermarkets. Progress on these plans and reaching targets should be independently verified by third parties.
- **Decarbonize production processes** (including heating and hydrogen production) through the use of renewable feedstocks and alternative production methods in the context of broader transition plans. This should avoid false solutions such as carbon capture and storage (CCS), which are often promoted by agrochemical producers as part of their industry growth plans.
- **Phase out the production of Highly Hazardous Pesticides** by 2030 as identified by the World Health Organization, and more comprehensive listings of HHPs based on criteria devised by the European Chemicals Agency and EPA, in line with the latest resolution adopted by the Global Framework on Chemicals.



Photo: Michael Esealuka



Texas is one of the largest petrochemical complexes in the world and one of the nation's largest producers of fossil fuels and plastic. This comes at the expense of the lives of the surrounding communities, typically Indigenous, Brown, and Black relatives.

With that ranking, UNDRIP and ILO 169 are violated. These International Declarations and Conventions enforce the need for states to provide effective mechanisms for the prevention of any action that has the effect of dispossessing, exploiting, and performing any work that is likely to be hazardous or to interfere with our fundamental human rights."

Cheyenne Rendon, San Antonio, TX
Senior Policy Officer, Society of Native Nations



Remedy and Responsible Exit

In order to provide effective remedy, financial institutions should:

- **Partner with affected communities.** For remedy to be adequate and effective, the communities affected by petrochemicals must directly participate in determining what remedy should entail in their cases, including the design, implementation, and monitoring of site-specific remedial action plans, as well as responsible exit plans.
- **Establish grievance mechanisms.** Promptly establish grievance mechanisms to receive, evaluate, and respond to human rights-related complaints associated with corporate and project financing for petrochemicals. Grievance mechanisms should involve clear and accessible eligibility criteria based on UN Guiding Principles on Business and Human Rights (UNGPs), public reporting on complaints received and their outcomes, and disclosure of financing relationships and cooperation in grievance processes when complaints arise.
- **Adopt clear frameworks.** Promptly develop remedy and responsible exit frameworks to avoid, mitigate, and address harms caused by petrochemical projects and companies that currently or previously received financing. Frameworks should be based on international principles and standards, including the UN's 2005 Basic Principles on Remedy and Reparations and the UNGPs.
 - **Remedy frameworks** should include a clear remedial action mandate, ensuring that affected communities are integrated as key rights-holders and can expect meaningful outcomes from the grievance mechanism process. Depending on the context, remedy may come in both monetary and non-monetary forms, including restitution, compensation, rehabilitation, satisfaction, and guarantees of non-repetition.
 - **Responsible exit frameworks** should ensure that exiting an investment includes mandatory, meaningful community consultations, remedial actions, pressure on clients to provide remedy, public disclosure of exit, and long-term commitments from the financial institution and the client to continue to provide remedy even after decisions to exit. The responsible exit framework should also consider the social costs of transition as detailed in the just transition recommendations.
- **Update contract terms.** Require petrochemical clients to agree to contract terms that incorporate requirements around remedy and responsible exit, including requirements to anticipate and avoid harm, participate in grievance processes, and provide monetary and non-monetary remedy to harmed individuals, workers, and communities, among other environmental, social, and governance standards.

Just Transition and Zero Waste

Financial institutions should:

- **Develop social and environmental lending and investment criteria** to ensure proactive financing of activities that have positive environmental and social impacts, including meaningful efforts to finance micro and/or early-stage clean businesses and financing that contributes towards greater racial equality. This should include increasing access to non-predatory capital in BIPOC communities and financing Indigenous-led land trusts. Community benefit agreements (CBAs) should be required for any projects receiving direct or corporate financing.
- 
- Photo: Michael Esealuka
- **Consider the social impacts of transition.** Ensure that plans for phasing out petrochemical financing take account of the social costs of transition, including funds for worker education and certification in transition industries as part of a broad package of support for a fair and equitable transition for workers. Transition plans should contribute to local economic diversification that can lead to the creation of a more just and equitable people-centered economy. Financing for small and family farmers shifting away from industrial agriculture towards agroecology and other sustainable farming systems should also be prioritized.
 - **Avoid false solutions.** A massive buildout of facilities for carbon capture and sequestration (CCS) or carbon capture, utilization, and storage (CCUS) is not a climate solution. Such projects are generally intended to extend the life of fossil fuels, are energy intensive, and often fail to meet capture targets while at the same time exacerbating GHG emissions up- and downstream, thereby locking into place the very fossil fuel system that we need to transition away from. Likewise, as mentioned above, no financing should be provided for 'chemical recycling.'
 - **Adopt a zero-waste approach.** Develop or strengthen guidance on financing to align it with the principles of non-toxic zero waste, with the ultimate goal of plastic avoidance. This could include a requirement that financial institutions set targets for reducing plastic waste, reusability, and net plastic released to the environment.
 - **Provide financial remediation.** Directly contribute to the costs of remediating sites, restoring waterways and lands, and providing free and affordable public health infrastructure, consistent with a restorative justice approach to the harms caused by their past and present petrochemicals financing. This financing should be allocated under the guidance of community-based organizations.

Fossil Fuels

A robust petrochemical policy should form part of a broader fossil fuel phaseout. As such, financial institutions should:

- **Prohibit financing for all fossil fuel exploration and expansion projects** and for all companies expanding fossil fuel extraction and infrastructure along the whole supply chain.
- **Establish absolute emissions reduction targets** for financing fossil fuels, with a clear timeline for phasing out such financing consistent with the 1.5°C climate goal. This would require an immediate end to financing for coal and upstream oil and gas development, alongside year-on-year reductions in all fossil financing in line with minimizing climate harms.
- **Require clients to develop and publish transition plans** to zero out fossil fuel activity on a 1.5°C-aligned timeline. Financial institutions should withdraw financing for clients who fail to provide credible plans aligned with a 1.5°C climate goal.
- **Defund shale gas.** Immediately terminate all investments, underwriting, and lending for shale gas production and add shale gas financing to exclusion lists.



Photo: Isabel Jenkins

Conclusion

The planned expansion of plastics and petrochemicals production in the US would be disastrous for the environment and human health. Unchecked petrochemicals expansion would rapidly blow the remaining carbon budget for meeting the 1.5°C global climate target. As shown in this policy guide, the impacts of petrochemical production are already heavily concentrated in communities of color and low-income communities in Louisiana, Texas and the Ohio River Valley, and expansion plans would deepen these forms of environmental racism and injustice.

Banks, investors, and insurance companies have a responsibility not to finance, underwrite, or insure the expansion of petrochemicals and to put in place policies and targets that move away from this unsustainable sector. And when these financial institutions have contributed to harm, they should contribute to remedy.



Photo: Isabel Jenkins

Stopping petrochemicals expansion and transitioning away from existing production is a moral imperative that also makes business sense. The plastics sector is already facing issues of overproduction, compounded by consumer attitudes shifting away from single-use disposable plastic and a raft of new legislation to limit its use. The market for plastic and petrochemicals has become increasingly risky, and profits less dependable.

For these reasons, we are calling on financial institutions to

1. Stop Financing Petrochemicals
2. Require Clients to Adopt Transition Plans
3. Stop Financing Environmental Racism and Injustice
4. Respect Human Rights and Indigenous Sovereignty
5. Responsibly Exit the Petrochemical Supply Chain

Reversing the expansion of the petrochemicals sector is vital and urgent if we are to achieve a future with clean air, water, and soil, where communities can thrive and where planetary boundaries are respected. The time to act is now.

#Break Free From Plastic

Break Free From Plastic is a global movement of 2900+ member organizations that advocates for a future free of plastic pollution. Break Free, and its members work for environmental justice and an end to the plastic pollution crisis by fighting for systemic change across the whole petrochemical value chain, from fossil fuel extraction to plastic waste disposal.



Founded in 1989, the **Center for International Environmental Law (CIEL)** uses the power of law to protect the environment, promote human rights, and ensure a just and sustainable society. CIEL is dedicated to advocacy in the global public interest through legal counsel, policy research, analysis, education, training, and capacity building.



Friends of the Earth fights for a more healthy and just world. Together, we speak truth to power and expose those who endanger the health of people and the planet for corporate profit. We organize to build long-term political power and campaign to change the rules of our economic and political systems that create injustice and destroy nature.



Texas Campaign for the Environment (TCE) works towards a Texas free from pollution. Since 1991, we have empowered everyday Texans who are doing whatever it takes to fight for clean air and water in their communities. TCE is organizing to push back on oil, gas, petrochemical and plastic polluters—and their political and financial enablers—who are profiting from climate destruction.

This guide is intended for educational purposes only and should not be considered financial advice. This guide is also not legal advice. In addition, Break Free From Plastic, Center for International Environmental Law, Friends of the Earth, and Texas Campaign for the Environment do not seek collective decision-making or action by financial institutions or other entities, and nothing in this guide should be construed as encouraging or requiring such collective decision-making or action.

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Endorsing Organizations

198 Methods • 350.org • AbibiNsroma Foundation • Action for the Climate Emergency (ACE)
Alaska Community Action on Toxics • Andy Gheorghiu Consulting • Basel Action Network
Bayou Environmental Justice Coalition • Between the Waters • Bend the Curve
Better Brazoria: Clean Air & Water • Biodiversity and Biosafety Association of Kenya (BIBA Kenya)
Black Appalachian Coalition • Centre for Citizens Conserving Environment & Management (CECIC)
Climate Conversation Brazoria County • Climate Organizing Hub
Concerned Citizens Table of Lake Charles • Defend Our Health • Divest Oregon
EARTHDAY.ORG • Earth Ethics, Inc. • Earth Guardians • Earthworks • EcoGovLab
Environmental & Public Health Consulting • Extinction Rebellion Houston
Feedback Global • Fenceline Watch • For a Better Bayou • Fossil Free California
FreshWater Accountability Project • Gulf South Fossil Finance Hub • GreenFaith • Greenpeace USA
Habitat Recovery Project • HEAL (Health, Environment, Agriculture, Labor) Food Alliance
Hip Hop Caucus • Impact Appalachia • Ingleside on the Bay Coastal Watch Association
Inland Ocean Coalition • Institute for Policy Studies Climate Policy Program • JSA ESG Impact
The Last Plastic Straw • Leave it in the Ground Initiative (LINGO) • Micah Six Eight Mission
Mountain Watershed Association • North American Climate, Conservation and Environment (NACCE)
The Oakland Institute • Oil and Gas Action Network • Oil Change International
Peak Plastic Foundation • People Over Petro Coalition • Pesticide Action and Agroecology Network
Presente.org • Plastic Pollution Coalition • The Plastic Solutions Fund
Post-Landfill Action Network (PLAN) • Port Arthur Community Action Network(PACAN)
RISE St. James Louisiana • Sena Sea Seafoods • Stand.earth • Society of Native Nations
Solutions for Our Climate (기후솔루션) • Team HOPE Nola / Climate HOPE Nola
Turtle Island Restoration Network • Texas Permian Future Generations • Third Act Texas
Urgewald • Vessel Project of Louisiana • Vietnam Human Rights Network
Waterkeepers Chesapeake