Paying to Pollute

The Environmental Injustice of Pollution Trading

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Free market environmental policies are fundamentally changing America's approach to pollution control. Market-based pollution credit schemes are undermining successful environmental laws like the Clean Air Act and the Clean Water Act by allowing industries to pay for the right to dump contaminants into our waterways and air. The health and environment of communities surrounding these pollution sources pay the price for these free market environmental policies. All too often, these are lower-income neighborhoods and communities of color.

The traditional environmental regulatory approach — implemented in a suite of laws enacted in the 1970s — was intended to impose strict pollution control standards to limit and reduce toxic emissions, and to force polluters to cut their discharges by adopting cleaner technology and less environmentally damaging processes. Conversely, pollution trading programs allow industries to purchase pollution credits rather than curb their own emissions. In theory, firms that are unwilling to reduce their pollution would buy credits from polluters that have a greater capacity or willingness to cut their discharges.

These pollution trading regimes sanction industrial pollution under a convoluted market scheme of credit swapping, with little to no accountability. Instead of democratically established environmental regulations, polluters decide whether or not they will reduce emissions. As a result, pollution control is driven by financial incentive rather than by a need to protect human health and the environment.

Pollution Trading Regimes Threaten Health and Erode Environmental Justice

Pollution trading schemes reinforce the toxic burdens on disadvantaged communities. Lower-income and minority populations, already overburdened by the disproportionate siting of polluting facilities in their communities, often face an uphill battle to take on and defeat these inherently unfair market-based schemes.

The polluters that are most willing to buy credits can continue — or even increase — emissions that are hazardous to human health and the environment. Oftentimes, the architects of cap and trade policies promise much needed funding to entice lower-income communities to support these pay-to-pollute schemes. Pollution trading creates market incentives that undermine environmental justice.

The concept of environmental justice is rooted in the ideals of equity, transparency, inclusion and empowerment for

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all people and all communities. However, environmental justice has been elusive for minority and lower-income communities living in the toxic shadow of powerful corporate polluters.

The U.S. Environmental Protection Agency (EPA) defines environmental justice as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies."[1] Environmental justice must ensure that all affected people and communities are empowered to participate in decisions that impact their health and well-being, and that government and industry policies and practices do not have a discriminatory negative impact on communities of color and other low-income communities. Pollution trading fundamentally precludes the democratic engagement of vulnerable communities by placing the decision to pollute solely in the hands of industry.

The shift to market-based environmental regulation has daunting environmental justice implications for minority and lower-income communities. Companies trade pollution credits with little or no public input. This lack of transparency can concentrate emissions and exacerbate the persistent inequitable health and economic burdens in disadvantaged communities. Unlike the regulatory process, pollution trading leaves almost no room for political or legal recourse.

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Environmental injustice remains a reality despite decades of struggle. Disadvantaged communities continue to be exposed to higher levels of toxic and designated-EPA-criteria air pollutants and higher incidences of disease. The deeply entrenched structures of corporate power and political marginalization make these communities especially susceptible to environmental exploitation. Pollution trading will likely only add to these underlying burdens and further disempower vulnerable communities.

The Ongoing Struggle for Environmental Justice

Facility Siting in Communities of Color

The early environmental justice movement of the 1970s and 80s had a major focus on the disproportionate placement, or siting, of facilities in communities of color. In 1982, Warren County, North Carolina planned a hazardous waste landfill for soil contaminated with polychlorinated biphenyls (PCBs) over the fervent opposition of the local, predominantly lower-income and African-American residents. The resistance represented the first time an African-American community organized a national, unified fight against environmental racism.[2] Soon after, academics and investigators began to publish studies and reports documenting the disproportionate siting of toxic waste facilities in marginalized communities, further galvanizing the movement.[3]

Polluters have long built their facilities in lower-income and minority communities where residents lacked the political muscle to prevent toxic facilities from moving into the neighborhood. A 2005 study found that hazardous waste facility siting has followed a "path of least resistance" for decades; as a result, disempowered communities have "borne a disproportionate share of the society's environmental burdens."[4] Over time, the disproportionate siting of polluting facilities in communities of color worsens these toxic health and environmental burdens.[5]

Pollution trading can further exacerbate these underlying disparities for vulnerable populations. A 2009 University of Southern California study found that lower-income California residents were more likely to live near a large greenhouse gas emitter.[6] Two-thirds of lower-income African-Americans households and nearly 60 percent of lower-income Asian and Latino households are within six miles of a large greenhouse gas emitter, compared to about 40 percent of white households at all income levels.[7] A 2016 study found that the percentage of people of color

and people living in poverty was over 20 percent higher in neighborhoods within 2.5 miles of facilities covered by California's greenhouse gas cap-and-trade program than in neighborhoods outside of this area.[8] The neighborhoods surrounding these facilities are also twice as likely to rank worst in cumulative social and environmental stressors to health compared to the rest of California.[9]

These communities face more than toxic neighbors; additional and widespread barriers to achieving environmental justice persist along class and color lines. Lower-income and minority areas had fewer community-based environmental organizations, and polluters in these communities have higher rates of environmental violations, lower levels of enforcement and lower fines when enforcement actions are taken.[10] Fortunately, over the last three decades the emergence of hundreds of community and environmental justice organizations as effective advocates has provided the opportunity to bring about positive changes.

Higher Exposures and Health Burdens

The disproportionate siting of toxic facilities in targeted, vulnerable communities exposes these populations to disproportionately higher levels of pollution, which poses significant environmental health risks. Exposure to unhealthy air pollutants — such as carbon monoxide, sulfur oxides (SO_x), nitrogen oxides (NO_x), volatile organic compounds (VOCs), ozone, heavy metals such as lead and mercury, and particulate matter (PM) — has been linked to respiratory irritation and infection, lung cancer, chronic bronchitis, asthma, increased blood pressure and heart disease, as well as reduced life expectancy in humans.[11] Water pollutants, such as heavy metals, polycyclic aromatic hydrocarbons (PAHs) and bromide discharges from power plants, are endocrine disruptors, reproductive toxins and carcinogens.[12]

In California, predominantly Latino and African-American census tracts have average total pollution burdens that rank in the worst third of the state (the 66th and 64th percentiles, respectively), compared to predominantly white census tracts with an average pollution burden in the best third (38th percentile).[13] Some of the most toxic, "worst-of-the-worst" of these facilities are in areas with a higher percentage of low-income and minority residents.[14]

Ambient nitrogen dioxide (NO_2) concentrations are nearly 40 percent higher for non-whites than whites, and African-Americans are more likely to live in areas with the worst fine particulate matter ($PM_{2.5}$) and ozone levels than in areas with the best air quality.*[15] Asian and Latino populations are more than 50 percent more likely than whites to reside in counties that exceed the U.S. EPA standard for $PM_{2.5}$ and ozone.[16] Disproportionate exposures to water pollution are no different. Minority and lower-income communities are closer to and consume more fish from waters contaminated with power plant discharges, putting them at greater risk from toxic pollutants such as the heavy metals selenium, lead and arsenic.[17]

Minority and lower-income communities often suffer from higher rates of illnesses associated with pollution compared to the rest of the population. There are about four times more ozone- and $PM_{2.5}$-related emergency room visits for asthma in high-poverty neighborhoods than in low-poverty neighborhoods.[18] Low-income African-American children have a higher asthma risk than white children.[19] Compared to whites, African Americans have higher rates of hypertension (28.6 percent and 41.3 percent, respectively) and are nearly 2.5 times more likely to suffer premature death from stroke.[20] In California, predominantly Latino and African-American census tracts on average have considerably worse rankings for asthma emergency room visits (the 67th and 89th percentiles, respectively) and low birth weights (60th and 91st percentiles) compared to predominantly white census tracts (35th percentile for asthma and 37th percentile for low birth weights).[21]

In Southern California, racial and ethnic disparities in cancer risks from exposure to air toxics persist even after controlling for household income and other known pollution causes such as population density, land use and home ownership.[22] Residents of lower-income counties are more likely to die of cancer than those in more affluent ones.[23] African-Americans also have the highest death rate from all cancers among all racial and ethnic groups in the United States.[24] African-American men are 40 percent more likely to die of cancer than white men, and African-American women are 20 percent more likely to die of cancer than white women.[25]

While many of these health disparities are also the result of complex differences in social factors and obstacles such as wealth inequality and low quality of health care, exposure to air and water pollutants is certainly a contributor to the health burdens plaguing vulnerable communities.[26]

***** Unless otherwise specified, racial categories indicate non-Latino African Americans and non-Latino whites; Latinos can be of any race.

How Cap and Trade Exacerbates Environmental Justice Concerns

Background

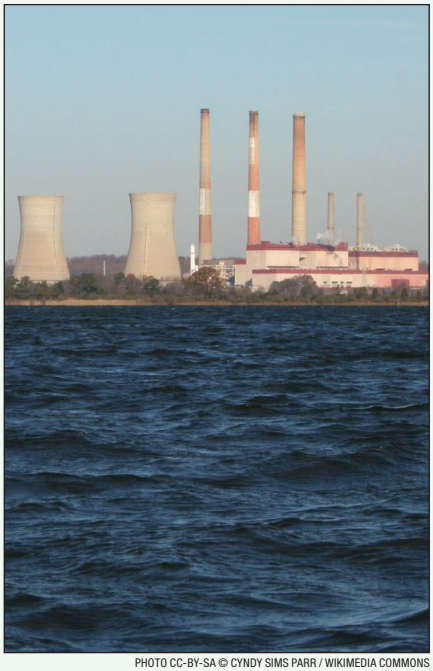
At its most basic, pollution trading schemes combine a pollution limit (the market-wide "cap"), the distribution of pollution credits (essentially a right to pollute) and a marketplace where these pollution credits or offsets can be traded (either through a broker or an exchange).[27] Trading proponents posit that this pollution credit marketplace will allow polluters to efficiently allocate pollution control costs — firms that can easily reduce their pollution will sell their credits to firms that cannot easily reduce pollution.[28] Some pro-market advocates promise that this will not result in net increases in pollution, as those selling pollution credits will reduce their discharges or emissions as much as or more than the increase in pollution from firms that buy credits.[29]

Theoretically, the trading scheme would reduce pollution at a lower cost than that of "less-flexible" traditional regulatory approaches, since the polluters that can most efficiently reduce pollution will sell their credits to firms that have higher emissions-reduction costs.[30] Polluters could maintain their emission allowances, reduce their discharges below the allowance and sell the unused pollution credits, or exceed the allowance by purchasing more pollution credits.[31] These schemes base the decision to pollute on the overall cost to a facility rather than on the impact to the health and environment of the surrounding community.

While trading advocates look to overall net pollutant loadings in water and air, they largely ignore the localized impacts of credit purchasing. Facilities choosing to increase pollution rather than abate their own discharges could exacerbate local "hotspots" in areas already suffering from high pollution levels.[32] Communities near credit-buying polluters may be unaware or have little opportunity to prevent the increased pollution allocation from happening.

All Trades Are Not Created Equal: The Unequal Distribution of Costs and Benefits

Pollution trading can compound the pre-existing environmental and human health burdens from the over-siting of polluting facilities in lower-income neighborhoods and communities of color. Air and water quality trading programs that target specific pollutants (such as carbon dioxide) can overlook the localized impacts of multi-pollutant emissions from power plants or factories. These trading programs allow polluters to buy credits to increase their overall emissions of the tradeable pollutant (like carbon dioxide), but result in increased local concentrations of non-tradeable pollutants (such as particulate matter, ozone or heavy metals) that create hotspots that can harm human health and the environment.



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Case Study: Chalk Point – An Unfair Trade

Cap-and-trade schemes can worsen existing disparities by encouraging polluters in lower-income and minority communities to buy the rights to increase their emissions. Chalk Point Generating Station is a massive coal-burning power plant near the predominantly African-American town of Eagle Harbor in Prince George's County, Maryland.[33] Chalk Point racked up significant permit violations for pollutants discharges into the nearby Patuxent River, but instead of reducing discharges to comply with its permit, the plant proposed to buy "credits" from Maryland farms to raise its pollution allowance and cover its violations.[34]

This trade might not have increased pollution into the Chesapeake Bay, but it would have concentrated pollution discharges into the Patuxent and increased exposures for Eagle Harbor's African-American residents. Food & Water Watch and the Patuxent Riverkeeper intervened in a lawsuit to prevent Chalk Point from including this trade in its pollution plan.[35] The lawsuit successfully forced Chalk Point to implement technological upgrades to minimize discharges and prevented the power plant from using credits and offsets to poison Eagle Harbor and the local environment.[36]

Facilities can emit a noxious blend of pollutants. Power plants are a major source of greenhouse gas emissions and are one of the highest emitters of hazardous air pollutants such as arsenic, benzene, chromium, hydrochloric acid, lead, manganese, mercury, nickel and particulate matter.[37] They are also major sources of water pollution such as selenium, cadmium and other toxic heavy metals.[38] Nearly half of the U.S. waterways receiving wastewater from electric power plants violate human health standards for at least one pollutant discharged by these facilities.[39]

Petroleum refineries are a major source of greenhouse gases that also discharge among the largest amounts of dangerous air pollutants like benzene, VOCs and particulate matter.[40] California petroleum refineries, cement plants and power plants together account for over 90 percent of industrial carbon dioxide emissions but also have the most disproportionate air toxic impacts on minority populations.[41] Depending on the co-pollutants, carbon trades between facilities, even within the same industry, could result in significantly different local health and environmental impacts.[42]

A 2016 study of California's cap-and-trade program found that the participating facilities that increased greenhouse gas emissions tended to be located in vulnerable communities. Sixty-one percent of the highest-emitting facilities also increased their greenhouse gas emissions during 2013-2014 compared to the preceding two years, a larger uptick than average.[43] The neighborhoods near these facilities that increased emissions had higher proportions of people of color than neighborhoods near facilities that reduced pollution.[44] Unfortunately, these documented impacts did not prevent the California legislature from enacting an even worse cap-and-trade program in 2017 that expressly preempted local air regulators from passing more-protective air quality regulations for greenhouse gas emitters.[45] The legislation was enacted after Governor Jerry Brown and the oil and gas industry struck a deal with support from some of the major environmental organizations.[46]

Policy makers and regulators who design and implement market-based approaches to pollution control, such as California's cap-and-trade program, often understand the disproportionate impact that these schemes will inevitably have on frontline communities. The architects of these plans try to reduce environmental justice opposition to these inherently unjust programs by dedicating a portion of the pollution trading revenues to various community

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improvement efforts.[47] As one leading state legislator stated, "As we move toward extending cap and trade, it's very important that these communities are provided the resources they need to combat these harmful emissions."[48] However, the best way to "combat" these harmful emissions is to eliminate them at the source, rather than providing money to deal with the consequences of ongoing, and sometimes increasing, emissions.

Revenue for vulnerable communities must be a part of any just transition to clean water and healthy air and climate; however, we should not demand that these communities live with ongoing pollution in exchange for much-needed funding. Instead, funds should be raised and provided to struggling neighborhoods through other, more equitable measures, such as closing corporate tax loopholes.

Polluters can purchase "offsets" that allow them to continue hazardous discharges based on the purported pro-environmental practice of the offset seller, which is difficult to measure and verify. Facilities that buy offsets instead of reducing pollution — or that even increase discharges — impose local environmental health burdens on surrounding neighborhoods. Over three-quarters of the offsets used in California's cap-and-trade program come from out-of-state projects (such as buying credits in forest land).[49] The top 10 users of this provision bought 65 percent of the offsets but accounted for more than one-third of total emissions.[50] These schemes create distant and unmeasurable alleged environmental benefits but real and concentrated economic costs.

A Historical Perspective: The Failures of RECLAIM and Rule 1610

Two early market-based schemes to control air pollution in Southern California, the Regional Clean Air Incentives Market (RECLAIM) and Mobile Source Credits (Rule 1610), were rife with problems. These market-based schemes exemplify how pollution trading has failed to make meaningful pollution reductions while creating localized pollution hotspots, undermining human health and the environment.

The 1993 RECLAIM program replaced the regulatory pollution control approach with cap and trade for NO_x and SO_x from major emitting facilities.[51] In an effort to appease industry, the program initially over-allocated credits significantly above actual emissions, which minimized and delayed any actual pollution reduction.[52] The surfeit of credits lasted until 2000, driving down their price and dis-incentivizing the installation of emission controls.[53] The U.S. EPA estimated that the program's actual emissions reduction was far less than the prior pollution control rules could have accomplished in the first seven years, and the program may have contributed to NO_x emissions hotspots.[54]

The Rule 1610 program aimed to reduce automobile pollution (VOCs, NO_x, carbon monoxide and particulate matter from exhaust) by issuing credits for scrapping old vehicles.[55] Rule 1610 allowed factories and refineries to buy these pollution credits instead of limiting their emissions, allowing dispersed motor vehicle pollution to be traded for localized VOC emissions.[56] The regional pollution burden became concentrated in a small number of communities near the clustered facilities that purchased most of the pollution credits.[57] This concentrated pollution created hotspots in the already highly polluted surrounding Latino and other minority communities.[58] Furthermore, the allegedly scrapped engines were re-sold, making the credits generated under the program essentially worthless.[59]

Lack of Public Participation, Transparency and Remedy for Communities of Color

Pollution trading schemes circumvent public participation and transparency. Under traditional environmental regulation, the public has numerous opportunities for input regarding pollution standards, the level of pollution control and enforcement in their communities. For example, the Clean Air Act allows for the public to provide comments and to participate in public hearings on permits for major sources of air pollution, revisions to state pollution control plans, and more.[60] Similarly, the Clean Water Act outlines requirements for public review, comments, and opportunities for public hearings for actions such as the issuance of National Pollution Discharge Elimination System permits for pollutant discharges and the review of toxic pollutant effluent limitations.[61] Although the public's input is often ignored, which frequently means that public participation is not meaningful, the EPA is required to consider these comments before issuing a final rule or decision.[62] Permitted facilities must release all emissions data to the public so that citizens can monitor and protect their communities from illegal discharges.[63]

In contrast, cap-and-trade schemes thwart transparency and public participation, giving the public even less input in government decisions that affect their health and environment, and weaken enforcement of environmental laws. Reduced transparency is a central tenet underpinning trading schemes. The California Air Resources Board, for example, "intentionally avoid[s] providing entity-specific information considered market sensitive that could influence supply, demand, pricing and related factors."[64] Californians are prohibited from knowing who is purchasing pollution allowances and in what amounts.

Pollution trading prevents the public review of individual trades between facilities and sanctions pollution control avoidance through credits and offsets.[65] Under the Clean Water Act, facilities are accountable for discharges, and permit compliance is easily verifiable and enforceable.[66] The traditional pollution control process that allows the public to comment and advocate on pollution control choices is rendered moot under trading schemes, which often occur without the community's input or awareness.[67] The EPA's Water Quality Trading document states that trading permits often need not be modified or reviewed for individual trades,[68] depriving public participation in the development and enforcement of pollution controls under the Clean Water Act. Participants in water pollution trading can legally pollute more than their original permits allowed by buying credits or offsets without pushback from the public or local communities.[69]

The lack of verification effectively eliminates the purported benefits of trading when pollution credits come from questionable, unmonitored sources. Agricultural pollution credits that are sold to industry polluters are unverified and uncertain, and often are based on unsustainable

practices that lead to likely increases in pollution in waterways. Food & Water Watch found that Pennsylvania's water pollution trading relied on pollution credits generated from moving millions of pounds of animal manure from one impaired watershed to another.[70] These credits merely shift the burden to other watersheds and communities instead of reducing pollution.[71] Water pollution trading replaces the Clean Water Act's transparent, accountable system with one that makes it virtually impossible to properly track pollution compliance.

The public plays a key role in pursuing and remedying environmental injustice. Both the Clean Water Act and the Clean Air Act allow citizens to bring lawsuits to challenge illegal activity, such as exceeding permitted discharge limits, when federal and state agencies lack the resources or the will to hold polluters accountable.[72] These provisions empower vulnerable populations to address the localized, concentrated environmental impacts of pollution trading that could disproportionately accumulate in marginalized communities.

Tradeable pollution permits prevent citizen suits that enforce standards or address permit violations and noncompliance. In Pennsylvania, the 1.4 gigawatt coal-fired Brunner Island Steam Electric Station had been one of the nation's top emitters of sulfur dioxide and had exceeded permit compliance for nitrogen discharges two out of three times between 2012 and 2015.[73] But under Pennsylvania's water pollution trading program, Brunner Island's permit compliance lapses for nitrogen discharges under the Clean Water Act were no longer a problem. The facility instead operated under a "net zero" nutrient discharge permit that allowed it to discharge as much nutrient pollution as it could buy. Between 2013 and 2014, Brunner Island was the third-largest buyer of nitrogen credits in the state, accounting for almost 10 percent of all credits purchased each year.[74]

Net zero discharge permits allow polluters to skirt existing discharge limitations and remove the public's ability to pursue major polluters like Brunner Island. In 2014, the Chesapeake Bay Foundation (CBF) submitted a notice of intent to file suit under the Clean Water Act to hold Brunner Island accountable for its questionable use of nutrient credits. CBF pointed out that Brunner Island's agricultural credits were unverified and that there was no proof that the credit-generating activities actually occurred; the group contended that Pennsylvania failed to show that the trading generated a net pollution reduction. Unfortunately, the lawsuit itself could never be filed, because Brunner Island no longer had permit limits that citizens can monitor and enforce.[75]

Additionally, it has been challenging and difficult for impacted communities to seek recourse through civil rights laws for environmental injustices such as the disparate impacts of trading. Efforts to address environmental discrimination fall primarily under Title VI of the United States Civil Rights Act of 1964, which prohibits racial discrimination by those who receive federal funding, and under a 1994 Executive Order, which directs federal agencies to ensure environmental justice by "identifying and addressing" disproportionate human health and environmental impacts of their policies.[76] Unfortunately, in 2001, the Supreme Court found that Title VI did not allow private lawsuits claiming disparate environmental impacts — instead requiring a showing of intentional discrimination — a divergence from three decades of court rulings that severely limited options for environmental justice advocates.[77]

Advocates can still file an administrative Title VI civil rights complaint with the EPA and attempt to force the agency to respond to remedy disparate impacts as well as intentional discrimination.[78] For example, in 2015 Greenaction for Health and Environmental Justice and El Pueblo Para el Aire y Agua Limpia/People for Clean Air and Water of Kettleman City filed an administrative Title VI complaint against the California EPA and the state's Department of Toxic Substances Control (DTSC) seeking redress for racial discrimination and racially discriminatory impacts in the permit process and decision to expand the Kettleman Hills hazardous waste landfill.[79]

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Seven months of federal mediation concluded in August 2016 with the signing of a landmark, precedent-setting and court-enforceable settlement that requires DTSC to consider civil rights, the cumulative impacts of pollution, and socio-economic indicators in its permit and regulatory decisions. The settlement also contains other mandates regarding improving air quality, health and meaningful civic engagement.[80] While this settlement is a major breakthrough in forcing government agencies to ensure that their decisions do not have a prohibited negative impact on people of color, it is essential that this civil rights settlement becomes a model to be followed by agencies across the nation.

The U.S. EPA has been woefully slow in addressing civil rights claims, routinely missing regulatory deadlines and overshooting timelines by months or even years.[81] Since 1993, the EPA has considered nearly 300 Title VI complaints, but it has "never made a formal finding of discrimination, has never denied or withdrawn financial assistance, and has no mandate to demand accountability."[82] Nor has the EPA fulfilled its mandate under the environmental justice Executive Order to consider potential discriminatory impacts of its policies on minority and low-income communities.[83] As a result, communities looking to remedy environmental injustices brought about by cap-and-trade schemes face an extreme, uphill battle to get the EPA to respond favorably. When the EPA simply ignores their complaint, communities must rely on a range of strategies and tactics including civil rights complaints, litigation, legislation, protests and other organizing and advocacy.

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Conclusion

Pollution trading sacrifices equity in favor of industry profits and will further burden lower-income and minority communities that are already suffering from disproportionate environmental health burdens. Market-based environmental policies can exacerbate toxic hotspots that remain outside the scope of trading schemes, and they worsen pre-existing health and socioeconomic disparities. Proponents of trading turn a blind eye to the reduced transparency, diminished public participation and lack of accountability, which means that the full brunt of these programs will impact communities that lack the resources or opportunity to resist them. Greenaction for Health and Environmental Justice and Food & Water Watch recommend that:

- **The federal government should ensure that all policies and actions do not erode environmental justice and health for low-income communities and communities of color impacted by pollution:** Title VI of the Civil Rights Act requires that recipients of federal funding — such as state and regional pollution trading programs — ensure that their activities do not have a disparate and negative impact on minority communities. All federal agencies must properly account for the environmental justice impacts when developing new policies and programs. The EPA must remove any publicly funded incentives for pollution trading under the proposed Clean Power Plan to prevent disparate environmental impacts. The EPA should strengthen the reporting and transparency requirements for facility- and industry-wide pollutant data, which allows stakeholders and advocates to better monitor potential environmental violations.
- **Congress should require the EPA to take action to enforce environmental civil rights violations:** The U.S. Commission on Civil Rights highlighted the appalling backlog of Title VI complaints and the EPA's failure to enforce environmental civil rights violations.[84] Congress should increase funding for the EPA's External Civil Rights Compliance Office with a mandate to empower enforcement and agency coordination, actively engage vulnerable and impacted low-income communities and communities of color, and end environmental injustice and civil rights violations.

- **States must halt market-based programs and restore, improve and expand regulatory pollution controls:** The Clean Air Act and Clean Water Act controls have successfully reduced pollution and protected human health and the environment, but these laws need to be strengthened and enforcement efforts redoubled. Industry-wide standards and facility pollution permitting are more effective than market-based policies.[85] The federal government must stop funding the promotion of pay-to-pollute schemes across the country. States should also vigorously pursue environmental justice enforcement and programs to protect lower-income communities and communities of color.
- **Advocacy groups must challenge air and water pollution trading programs:** Any legal advocate relying on the Clean Air Act and the Clean Water Act to safeguard communities should be alarmed by how trading schemes eviscerate citizen lawsuits against polluters. These programs reduce transparency, block public participation and provide little opportunity to pursue recourse for communities that lack the resources to resist inequitable policies and practices. Environmental allies need to strengthen their commitment to pursuing environmental justice and to reject inherently unjust and inequitable pollution trading schemes on the state and federal levels.
- **Disadvantaged communities must receive dramatically increased independent public funding to improve their community well-being:** Disadvantaged communities should not have to rely on funds generated from cap-and-trade or similar trading schemes that disproportionately harm the health of the very communities that are supposedly receiving financial benefits from these pollution trading schemes.

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