

AFRICAN AMERICANS AND CLIMATE CHANGE: AN UNEQUAL BURDEN

July 21, 2004





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This document is intended to provide input to the Commission's deliberations. The Commission will consider this report along with other information as part of its ongoing work. Nothing in the report should be construed as necessarily reflecting the views of the Commission or its individual Commissioners.

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Executive Summary

Where U.S. Energy Policy is concerned, African Americans are proverbial canaries in the coalmine. We are on the frontline of the likely social, environmental, and economic upheaval resulting from climate change. As a consequence, energy policy and climate change are issues of fundamental importance to the African American community. The inadequacy of current U.S. energy policy generates a range of adverse environmental and economic impacts. This report for the Congressional Black Caucus examines the relationship between energy policy, climate change, and African Americans in order to inform the growing policy discussion.

The fundamental conclusion of this report is that there is a stark disparity in the United States between those who benefit from the causes of climate change and those who bear the costs of climate change. The basic findings of this report are threefold:

- 1. African Americans are already disproportionately burdened by the health effects of climate change, including deaths resulting from heat waves and increased air pollution. Similarly, unemployment and economic hardship associated with climate change will fall most heavily on the African American community.
- 2. African Americans are less culpable for climate change than other Americans. Both historically and at present, African American households emit less greenhouse gases.
- 3. Policies intended to mitigate climate change can result in large health and economic benefits or costs for African Americans, depending on how they are structured.

Unless appropriate actions are taken to mitigate its effects or adapt to them, climate change will exacerbate existing equity issues within the United States.

1) African Americans Disproportionately Bear the Effects of Climate Change

Health Effects:

It is clear that African Americans will disproportionately bear the substantial public health burden caused by climate change. Health effects will include the degradation of air quality, deaths from heat waves and extreme weather events, and the spread of infectious diseases. At present, global climate change causes an estimated 160,000 deaths annually, and this number will only grow as the rate of change increases over the coming decades.

Air pollution is already delineated by racial boundaries in this country, with over seventy percent of African Americans living in counties in violation of federal air pollution standards. The number of people affected will increase as the higher temperatures of global warming are expected to further degrade air quality through increased ozone formation. In every one of the 44 major metropolitan areas in the U.S., Blacks are more likely than Whites to be exposed to higher air toxics concentrations. Partially as a consequence of this disparity, African Americans are nearly three times as likely to be

hospitalized or killed by asthma as Whites, and climate change is expected to increase the overall incidence of asthma in the general population.

African Americans are also presently at a greater risk of death due to **extreme heat events**; the most direct health effect of climate change will be intensifying heat waves that selectively impact poor and urban populations. Future heat waves will be most lethal in the inner cities of the northern half of the country, such as New York, Detroit, Chicago, and Philadelphia, where many African American communities are located.

African Americans may also be disproportionately impacted by the increased prevalence of **extreme weather** events and the spread of **infectious diseases** like Malaria and Dengue Fever, which occur primarily in Southern states. More importantly, the possible catastrophic climate change outlined in a recent Department of Defense study could have severe impacts on weather and human lives, with resulting resource shortages engendering military conflict. All of these problems are compounded by the fact that Blacks are 50% more likely than non-Blacks to be uninsured.

Economic Effects:

African American workers are likely to be laid off disproportionately due to the **economic instability** caused by climate change. In general, economic transitions strike hardest at those lacking the resources or savings needed to adapt. In the United States, drought, rise in sea level, and the higher temperatures associated with global warming may have sizeable impacts on several economic sectors including agriculture, insurance, and buildings and infrastructure. Economic modeling of the effects of climate change indicates that Southern states fare most poorly in general. On a global scale, climate change is likely to cause damages in excess of \$600 billion per year, with particularly negative effects in Africa. Similarly, the health and environmental effects of climate change will incur substantial costs for the African American community.

While many of these figures have appeared elsewhere in scientific literature, this is the first time that the impacts of climate change have been assessed specifically for the African American community. The synthesis indicates that there is a substantial equity issue in the unequal distribution of the impacts of climate change.

2) African Americans Are Less Responsible for Climate Change

In contrast to the burden of climate change, *responsibility* for the problem does not lie primarily with African Americans. African American households emit **twenty percent less carbon dioxide** than white households. Historically, this difference was even higher. Despite producing less greenhouse gases, African American households are more vulnerable to shifts in the prices of fossil fuels. African Americans spend a significantly higher fraction of their income on direct energy purchases than non-African Americans across every income bracket. As a consequence, African Americans dedicate a much higher share of expenditures to energy purchases. Additionally, African Americans are more than twice as likely to live in poverty, as they are the group most impacted by energy prices. Increases in the price of energy will have more significant, negative effects on African Americans than on the general population.

These novel findings were estimated by combining modeling of consumer expenditures on both direct energy purchases (gasoline, natural gas, electricity, etc.) and purchases of embedded energy (the energy used to produce other goods such as food or clothing), with an input-output analysis of the carbon intensity of the U.S. economy.

3) Well Crafted Energy Policies Can Protect African American Health and Employment

African Americans will be directly affected by climate policies in three basic ways:

Reduced Pollution:

First, the African American community will disproportionately benefit from climate policies that **slow climate change or reduce ancillary pollutants** such as criteria air pollutants. Reducing emissions to fifteen percent below 1990 levels would mitigate the health effects of climate change, while concomitantly decreasing air pollution-related mortality, saving an estimated 10,000 African American lives per year by 2020. The heat-related and extreme weather deaths outlined in Chapter One would be mitigated by a concerted effort to address climate change.

Energy Prices:

Second, African Americans will be disproportionately helped or harmed by the effects of climate policies on **the price of energy**. As Chapter Two rigorously documents, African Americans dedicate roughly a 25% greater share of income to energy and energy-related goods; thus, poorly designed climate policies will most directly harm African American families. Such policies include those that suddenly increase the price of energy, but do not raise revenue and recycle it in a progressive manner, or fail to promote clean energy technologies. In contrast, properly designed energy policies can create large net benefits for African Americans. When the revenue from carbon charges is used to offset distortionary taxes, such as payroll taxes, dramatic employment benefits can be reaped across the nation. Several studies have found net job creation from climate policies to be approximately 800,000 to 1,400,000 jobs. Based on historic hiring patterns, this increase in employment will disproportionately profit African Americans.

Fossil Fuel Dependence:

Third, African Americans will significantly benefit from transitioning the economy away from fossil fuel consumption. Currently, energy prices—oil prices in particular—have undue influence on the general state of the economy and employment rates. Nine of the last ten recessions have been preceded by periods of rising oil prices. During such periods of economic downturn African Americans are far more negatively affected in terms of employment and wages than other Americans, with the unemployment rate for Blacks at approximately twice the unemployment rates for Whites. Shifting away from fossil fuels to renewable sources will reduce this vulnerability. Moreover, renewable energy sources are significantly more labor-intensive than the highly-automated fossil fuel energy sector. Replacing coal and oil with renewable energy or energy efficient

methods will likely increase overall employment levels in the energy industry per unit of production.

A number of policies exist that either intentionally or unintentionally affect climate and energy use in the United States. Policies specifically considered in this report are outlined in current and proposed energy legislation, including:

- Appliance efficiency standards
- Exploration of the Arctic National Wildlife Refuge
- CAFÉ standards
- Ethanol promotion
- An array of fossil fuel tax incentives
- Several hydrogen energy initiatives
- LIHEAP and Weatherization Assistance
- Modifications to New Source Review
- Nuclear energy promotion (in S.2095)
- Various incentives for renewable energy (e.g. S.2095)
- Renewable portfolios
- The Climate Stewardship Act (S.139)
- Multi-Pollutant Power Plant Legislation (e.g. S. 366, S. 485, H.R. 999, S. 843)

Summary

The Congressional Black Caucus Foundation and Redefining Progress see this report as an important contribution to the energy and climate policy dialogue. Equity is a critical, and often neglected, concern for energy policy debate. We clearly document that African Americans are less responsible for, and disproportionately burdened by, the health and economic effects of climate change. African Americans are also most likely to bear the brunt of poorly structured energy policy, we are hit hardest by the impacts of climate change, and have the most to gain from the policies that promote more efficient technologies and lower overall energy costs.

The benefits of reducing carbon emissions such as lower air pollution, new jobs and reduced oil imports would help all Americans - particularly African Americans. Policies that reduce carbon dioxide emissions can also lower emissions of other pollutants including particulates, ozone, nitrogen and sulfur oxides. These reductions would create major health benefits, particularly for urban African American communities.

While the impacts of climate change are global, the effects are not evenly distributed throughout the world. Instead, climate change is likely to have different impacts on different socioeconomic and racial groups. It is important to determine the distribution of these costs and benefits in order to create fair and responsive climate policy.

African Americans, who have contributed the least to climate change and stand to gain the most from mitigation, are least able to bear the burden of poorly designed policies. Because African Americans spend a larger share of income on energy purchases, policies that increase the price of energy disproportionately harm our communities if they do not recycle revenues. Conversely, policies that reduce energy consumption, such as energy efficiency standards and home weatherization programs would provide disproportionate benefits to African Americans.

We must be in the forefront of the effort to advance energy policies that address the complex array of issues and problems associated with climate change. In pursuing a comprehensive energy strategy, the most important elements include further reducing the air pollution harming our communities, decreasing America's dangerous addiction to fossil fuels, and offsetting the regressive effects with fair, efficient, and equitable solutions.