



Congressional
Black Caucus
Foundation, Inc.

Center for Policy Analysis and Research

No.2

September 2005

Climate Change and Extreme Weather Events

An Unequal Burden on African Americans

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This Issue Brief is an edited excerpt from a CBCF research report entitled “African Americans and Climate Change: An Unequal Burden” which was originally authored by Redefining Progress and released by the CBCF on July 21, 2004. This research was funded by the generous support of the National Commission on Energy Policy. All of the views presented are the author’s and the editor’s and should not be attributed to the sponsor or any affiliated entity.

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INTRODUCTION

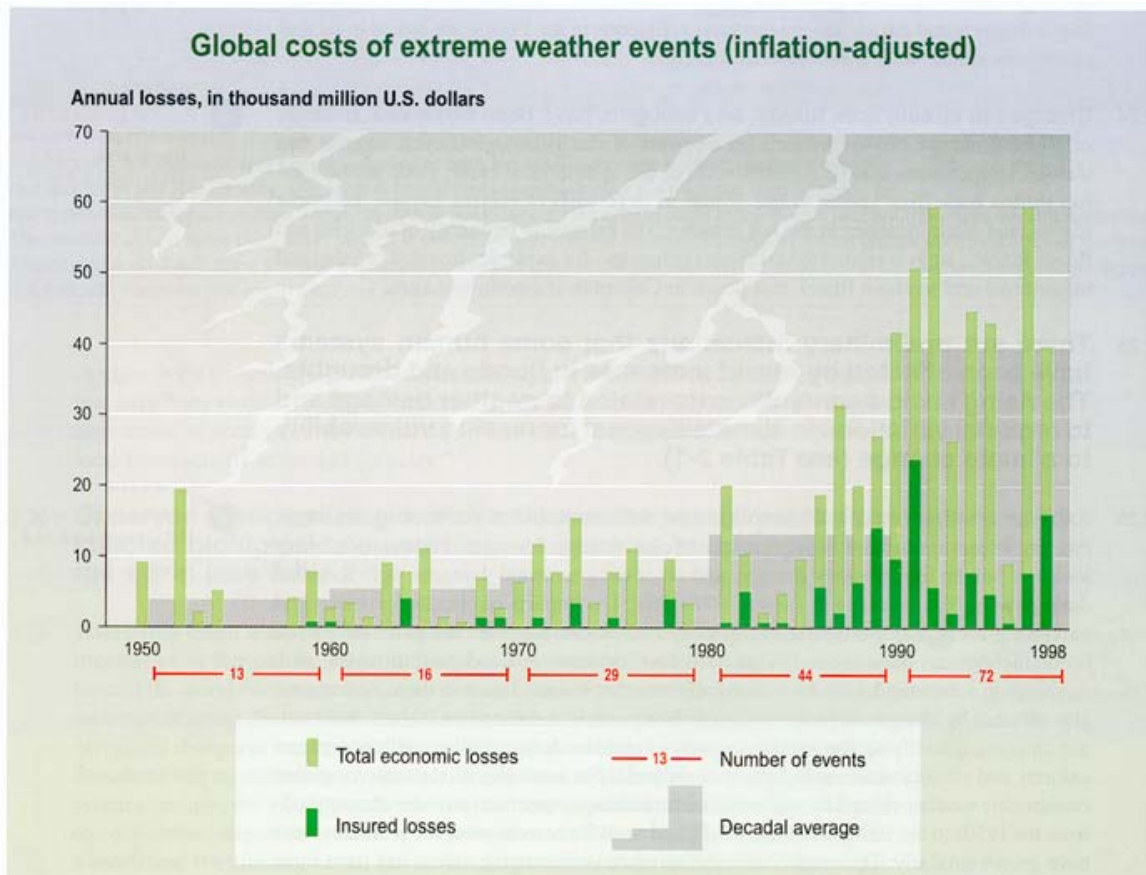
The mission of the Congressional Black Caucus Foundation (CBCF) is to serve as the policy-oriented catalyst that educates future leaders and promotes collaboration among legislators, business, organizational, and organized labor leaders to effect positive and sustainable change in the African American community.

From this vantage point, CBCF is terribly concerned about environmental quality throughout the world and particularly regions where African Americans and people of the African Diaspora reside. Energy policy and climate change are issues of fundamental importance to the African American community. The recent hurricanes, Katrina and Rita, that devastated the gulf region is in part a result of the warming of the environment. According to the Intergovernmental Panel on Climate Change (IPCC) (2001a: Figure 2-6), a consistent, large-scale warming of both the land and ocean surface occurred over the last quarter of the 20th century. This report also provides evidence that warming in some regions is linked with observed changes in biological systems on all continents.

More hot days and heat waves are very likely over nearly all land areas. Increases in mean temperature will lead to increases in hot weather and record hot weather, with fewer frost days and cold waves.¹ Overall, the atmosphere surrounding planet Earth is 1 degree Fahrenheit warmer and, on average, the water surrounding the gulf is 2 degrees Fahrenheit warmer; these are meaningful changes that depart from the long-term historical trend.² This warming substantially increases the intensity of storms and powers the development of hurricanes. According to Figure 1, from 1970 to

1980 there were 29 extreme weather events³ and from 1980 to 1990 there were 44 and during the last decade over 72 extreme weather events occurred across the globe (Intergovernmental Panel on Climate Change 2001a: Figure 2-7). As provided in the IPCC report, the global cost of each extreme weather event, on average, has increased to \$40 million per event⁴ over the 1990's up from \$12 million in the previous decade (1980 to 1990).

Figure 1



Source: Intergovernmental Panel on Climate Change 2001a: Figure 2-7

While the impacts of climate change are global, there are indications that the effects are not spread evenly across the world. Instead, climate change is having different impacts on people of different socioeconomic status and racial groups. The overwhelming loss of life and property by the poorest residents of the gulf region provides another example of how climate change is devastating communities and families of color who are unable to afford Flood Insurance and other necessary protections that will allow them to rebuild and restore their lives as they were before the disaster.

Negative Effects of Climate Change

Much of the scientific literature indicates that climate change is projected to increase threats to human health, particularly in lower income populations, predominantly within tropical/subtropical geographical locations.

“Climate change can affect human health directly (e.g., reduced cold stress in temperate countries but increased heat stress, loss of life in floods and storms) and indirectly through changes in the ranges of disease vectors (e.g., mosquitoes), 3 water-borne pathogens, water quality, air quality, and food availability and quality (*medium to high confidence*). The actual health impacts will be strongly influenced by local environmental conditions and socio-economic circumstances, and by the range of social, institutional, technological, and behavioral adaptations taken to reduce the full range of threats to health.”

Intergovernmental Panel on Climate Change (2001b: Synthesis Report Question 3)

Health Effects⁵

African Americans are already disproportionately burdened by the health effects of climate change.

- Specifically, health effects include upper respiratory problems as a result of the degradation of air quality, deaths from heat waves and extreme

weather events, and the spread of infectious diseases. Globally, climate change already causes an estimated 160,000 deaths annually, and this number will only worsen as the rate of change increases over the coming decades.

- Exposure to air pollution is divided down racial lines in this country, over 70 percent of African Americans live in counties in violation of federal air pollution standards. Furthermore, in every one of the 44 major metropolitan areas in the U.S., African Americans are more likely than whites to be exposed to higher air toxic concentrations. As a result, African Americans are nearly three times as likely to be hospitalized or killed by asthma.
- Moreover, extreme heat events pose the most direct health effect of climate change. In particular, future heat waves will be most lethal in the inner cities of the northern half of the country, such as New York City, Detroit, Chicago, and Philadelphia.
- Similarly, extreme weather events occurring most frequently in the Southern states, will indicate the spread of infectious diseases, such as malaria and dengue fever. This is particularly, burdensome for African Americans given that they are 50 percent less likely than whites to have access to health insurance.

Economic Effects⁶

The changes in temperature extremes are likely to result in increased crop and livestock losses, higher energy use for cooling and lower for heating, and increased human morbidity and heat-stress-related mortality.

African Americans are laid off disproportionately due to the economic

instability caused by climate change.

- In the United States, drought, sea level rise, and the higher temperatures associated with global warming are expected to have sizeable impacts on several economic sectors including agriculture, insurance, construction and infrastructure. Globally, climate change is likely to cause damages in excess of \$600 billion per year, with particularly negative effects in Africa.

Despite the heavy burden of climate change that African Americans carry, they are *less responsible* for climate change than other Americans; historically and at present, African Americans emit 20 percent less greenhouse gases per household.

Clearly, policies intended to mitigate climate change can generate large health and economic benefits or costs for African Americans, depending on how they are structured.

This study is a result of a historic collaboration between the Congressional Black Caucus Foundation, who requested the study after consulting with a number of environmental experts, Redefining Progress, an Oakland California research firm that conducted the research, and the National Commission on Energy Policy who provided the monetary support for the project.

CBCF believes that a very progressive effort to further shed light on the effects of global warming on the African American community is warranted as not enough are aware of its devastating impact. Nor has there been a great understanding about what is occurring across the globe as a direct

result of climate change. Now, this report has given the African American community more reason to be highly involved in the environmental policy debate.

The study provides evidence that there will be increased health and economic costs for not getting involved in the debate today. The health and economic viability of African American communities and Africans throughout the diaspora will continue to be threatened if policies that significantly mitigate the effects of global warming are not explored and enacted.

Policy Implications⁷

The question remains, what proposals are optimal for African American communities? Since global warming is expected to disproportionately impact African Americans, a policy that aims to meaningfully reduce global warming is important. There are many steps that can be taken to mitigate the effects of climate change. According to our study, policies that seem to have the most favorable impacts on the health of African Americans involve a substantial decrease in emissions of carbon dioxide and associated pollutants and encourage international cooperation in mitigating climate change. There is a need for economically efficient proposals that will stimulate significant public investment in energy efficiency and renewable energy. Furthermore, optimal policies will offset the detrimental effects on vulnerable populations by redirecting revenues to vulnerable populations utilizing tax incentives and direct transfers from, for example, pollution abatement revenues.

Well crafted energy policies can protect African American health and employment and there are basic criteria that each policy should meet. We have identified three basic impacts that energy policy should have on African American communities.

1. Significant reduction in pollution exposure

A reduction of 15 percent below 1990 air pollution levels would mitigate the health effects of climate change, while simultaneously decreasing air pollution related mortality, this is estimated to save 10,000 African American lives per year through 2020.

2. Lower the price of energy

African Americans are very sensitive to the price of energy because they are more than twice as likely to live in poverty than whites. They expend 25 percent more of their income on energy and energy-related goods. Poorly designed energy policies will most directly harm African American families. For example, policies 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 will ultimately raise expenditure burdens even more.

On the other hand, well designed energy policies can create large net benefits for African Americans. For example, when the revenue from carbon charges is used to offset distortionary taxes, such as payroll taxes, dramatic employment benefits can result. Properly designed energy policy can influence job creation, several studies find net job creation from climate policies on the order of 800,000 to 1.4 million jobs.

3. Decrease dependence on fossil fuels

African Americans will significantly benefit from transitioning the economy away from fossil fuel consumption. Currently, energy prices overall and oil prices in particular, has undue influence on the general state of the economy and on employment directly. During periods of economic downturn African Americans are far more negatively affected regarding employment and wages than other Americans. Given African American unemployment rates of twice that of white unemployment, shifting away from fossil fuels to renewable sources will reduce this vulnerability. One specific indication is the fact that renewable energy sources are significantly more labor intensive than the highly-automated fossil fuel energy sector, in turn this 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 pollution levels and energy use in the U.S. Policies specifically considered in this report include:

- 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, H.R.4067)
- Multi-Pollutant Power Plant Legislation (e.g. S. 366, S. 485, H.R. 999, S. 843)

You will find a more detailed analysis of these policies in the full report: “Climate Change: An Unequal Burden” .

In conclusion, the Congressional Black Caucus Foundation sees this report as an important contribution to the energy and climate policy dialogue. Equity is a critical and often neglected concern for energy policy. The report clearly illustrates 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 hardest hit 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, and 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.

ENDNOTES

¹ A number of models show a generally decreased daily variability of surface air temperature in winter and increased daily variability in summer in Northern Hemisphere

land areas. See Figure 4-1a,b from the Intergovernmental Panel on Climatic Change, *Climate Change 2001: Impacts , Adaptation, and Vulnerability* report.

² The temperatures were taken from a statement by Stephen Schneider, A Climate Scientist from Stanford University and member of the WWF Climate Science Advisory Committee during a September 5, 2005 interview with Bill Maher.

³ Incidence of extreme weather events include floods, droughts, heat waves, and various types of storms.

⁴ These costs include insured losses and economic losses such as property damage.

⁵ See the Congressional Black Caucus Foundations full report for a complete discussion on health effects; (2004). *African Americans and Climate Change: An Unequal Burden*. The Congressional Black Caucus Foundation and Redefining Progress, Washington, D.C.

⁶ Ibid

⁷ Ibid

CITATIONS

Redefining Progress (2004). *African Americans and Climate Change: An Unequal Burden*. The Congressional Black Caucus Foundation and Redefining Progress, Washington, D.C.

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