



***Sandy Climate Justice
Roundtable***

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Environmental Justice and Climate Change

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- **Climate Change Context**
- **Environmental Justice Context**
- **Sandy Climate Justice Roundtable**

Climate Change:

Caused by emissions of greenhouse gases.

Temperature

70% of summers by mid-century will be warmer than the warmest summer on record. (See Broccoli 2013)

Coldest year of 2000's warmer than 75% of the years from 1900-1920's. (See Broccoli 2013)

Three warmest years on record have occurred since 1998. 2012 was the warmest. (See Broccoli 2013)

Days above 90 degrees F may increase from current average of 14 per year to 23-29 by 2020 and 29-45 by 2050. (See Climate Adaptation Alliance 2013a)

Heat Stress has already reduced outdoor labor capacity by 10% in peak months and will do so by 20% by 2050. (Dunne et al. 2013)

Precipitation: From 1958-2011 74% of our precipitation came from heavy precipitation events (1% of events). (See Broccoli 2013)

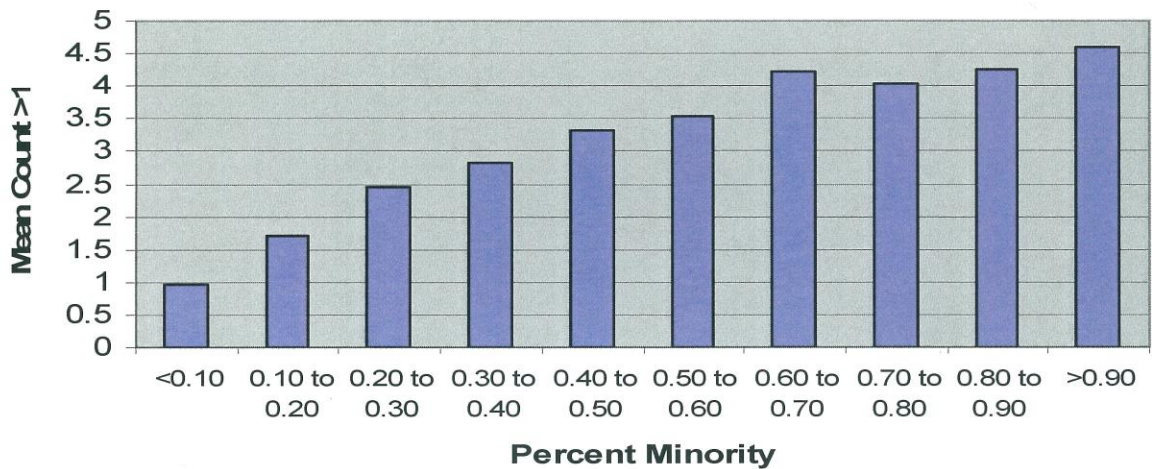
Storms: Today's 100 year storm will occur every 35 to 55 years by 2050. (See NJ Climate Adaptation Alliance 2013a)

Air Pollution

By the end of the century violation of the federal 8-hour ozone standard might increase by over 300% in the northeast. (Frumhoff et al. 2007)

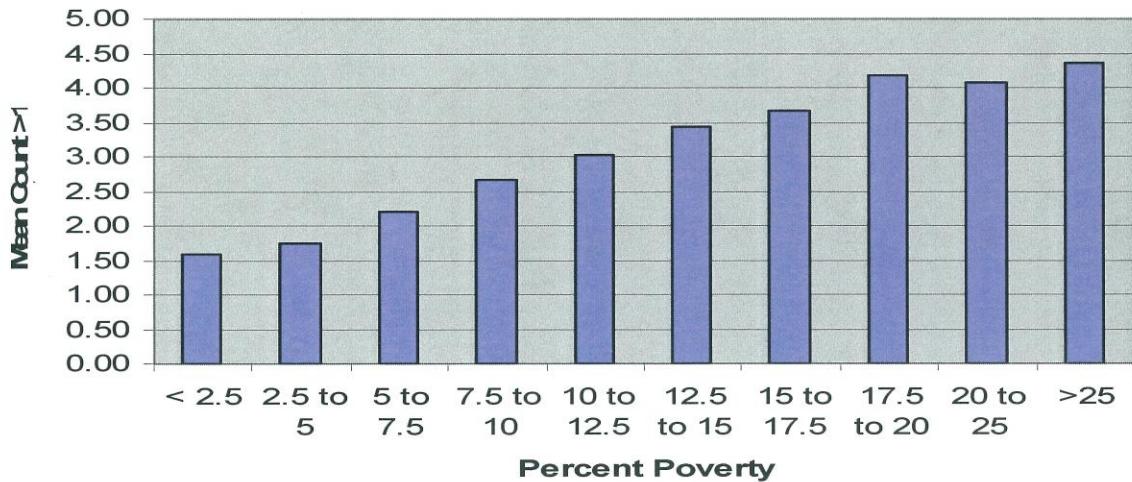
Concentrations of fine particulate matter may increase. (See NJ Climate Adaptation Alliance 2013b)

Figure 1: Relationship Between Cumulative Impact and Percent Minority



- Grouped all block groups based on percent minority and poverty
- Calculated average cumulative impact score for combined groups
- Cumulative impact scores increase steadily with increasing percent minority and poverty

Figure 2: Relationship Between Cumulative Impact and Poverty





A Preliminary Screening Method to Estimate Cumulative Environmental Impact

**Presentation by the New Jersey Department of Environmental Protection
to the Environmental Justice Advisory Council**

December 2, 2009

Indicators:



- **NATA diesel (1999)**
- **NATA cancer risk**
- **NJDEP benzene estimates**
- **Traffic (all)**
- **Traffic (trucks)**
- **Density of major regulated sites**
- **Density of known contaminated sites**
- **Density of dry cleaners**
- **Density of junkyards**

Vulnerable People and Communities



Especially vulnerable people and communities:

Chronically ill, children, elderly, disabled, **low-income communities, communities Of Color.**



Detrimental impacts of climate change: severe storms, heat waves, increased air pollution, higher food prices and more.

Environmental Justice



Why EJ communities are more vulnerable:

- More pollution
- Health disparities
- Housing and lending discrimination
- Fewer resources
- Poor infrastructure
- Urban Heat Island Effect

(See Bullard and Wright 2009; Pastor et al. 2006)

These factors pertain directly to the impacts of climate change.



The Broader Context:

Median family income (2011)

White: \$55,412

Black: \$32,229

Latino: \$38,624

Poverty (2011)

White 9.8%

Black 27.6%

Latino 25.3%

(U.S. Census Bureau 2012)



The Broader Context:

Unemployment (2012)

White: 7.2%

Black: 13.8%

Latino: 10.3 (Bureau of Labor Statistics Website)

Incarceration per 100,000 (2005)

White 412

Black 2,290

Latino 742 (Mauer and King 2007)

The Broader Context:



Life expectancy and Income

By the year 2000 the gap between life expectancy in the lowest and highest socioeconomic groups was 4.5 years; 1.7 years more than in 1980. (Congressional Budget Office 2008)

Male workers in 1941 who earned in the top 50% of income who lived to 60 could expect to live 5.8 years longer than their counterparts in the bottom 50% of earnings. (Social Security Administration 2007)

The Challenge:



Fight climate change and address justice and equity !



Communities with high levels of cumulative impacts are also the most vulnerable to detrimental impacts of climate change:

- **Adaptation**
- **Mitigation**
- **Storm Surge**

Today's Activities



NJ EJ Alliance

Coalition of Black Trade Unionists

Concerned Citizens Coalition of Long Branch

GreenFaith

Ironbound Community Corporation

League of Women voters of NJ

NJ Climate Adaptation Alliance

NJ Environmental Federation

NJ State Conference of the NAACP

John S. Watson Institute for Public Policy

END



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