People's Democratic Republic of Algeria Ministry of Higher Education and Scientific Research

University of 8 Mai 1945 / Guelma Faculty of Letters & Languages Department of Letters and English Language جامعة 8 ماي1945/قالمة كلية الآداب و اللغات قسم الآداب و اللغة الانجليزية



Minorities Confronting Environmental Racism through the Furtherance of Environmental Justice Movement in the United States: How does it Work for African Americans?

A Dissertation Submitted to the Department of Letters and English Language in Partial Fulfillment of Requirements for the Master's Degree in Language and Culture.

The Board of Examiners

Chair: Ms BENDJEMIL Khawla Supervisor: Prof. TOULGUI Ladi Examiner: Ms TOULGUI Insaf (University of 8 Mai 1945/Guelma) (University of 8 Mai 1945/Guelma) (University of 8 Mai 1945/Guelma)

Submitted by:

HEGUEHAG Nabila

Supervised by:

Prof. TOULGUI Ladi

Acknowledgments

My greatest gratitude and my deepest thankfulness are to the One who should be praised first, to ALLAH whose help, conciliation and will enabled me to complete this research work. Also I wish to express my gratitude to several people whose support, patience, and insights have assisted me in preparing and finalize this project.

I am extremely indebted to my supervisor Professor TOULGUI Ladi whose efforts, helpfulness and insights have been beyond comparison. I acknowledge his valuable guidance effective advice and deep involvement throughout this academic journey. I personally cannot ask for a better supervisor.

I am heartily thankful to the members of the examining board who unselfishly gave me some of their precious time and energy to read my dissertation to eventually enable me to overcome my shortcomings.

I owe a lot to my family members who have encouraged me at every stage in my academic life, especially my parents. I should not forget to thank my two brothers Lotfi, and Mehdi, and my sister-in law Meriem as well.

I would like to express my gratitude to all my teachers without exception. Finally, I would like to thank my fellow students for their friendship and support especially Bouchra, Halima and Sarra.

Dedication

Words are not enough to show my gratitude and love to my dear parents who have

blessed and supported me throughout the ordeal of fulfilling my work. This dissertation is dedicated in the memory of my father "Mohamed", although you were not present but you kept me going. The work is also dedicated to my beloved mother who assisted me through my academic journey.

Abstract

This dissertation examined the phenomenon of Environmental racism in the USA. The primary victims of environmental racism were the poor, disenfranchised and minority communities who shouldered the burden of environmental hazards and toxic chemicals for several decades. This work chronicled how the affected communities launched their movement to abate environmental inequalities and establish environmental justice. In this research, African Americans were used as a case study because of their sensitive position and major role in addressing environmental racism in the US. Therefore, it required some extensive analysis and discussion. The objective behind the case is to reveal whether environmental racism is real or merely a coincidence within the community of African Americans who happened to reside in an unhealthy and unsafe environment compared with white citizens, whether the US government had a role in addressing this problem and protecting residents or reinforcing such inequalities. It can be concluded from this study that environmental racism is a harsh reality in the US. However, it is very likely that progressive improvements will take place thanks to the ongoing grassroots activism, the expanded research on Environmental Injustice, and affected communities' efforts to protect their environment.

ملخص

اهتمت هذه المذكرة بدراسة ظاهرة العنصرية البيئية في الولايات المتحدة الأمريكية، والتي كان ضحاياها الرئيسيين هم الفقراء والأقليات والسكان المحرومين من الحقوق والذين تحملوا عبء المخاطر البيئية والمواد الكيميائية السامة لعدة عقود. وقد سجل هذا العمل كيف بدأت المجتمعات المتضررة تحركاتها للحد من أوجه عدم المساواة البيئية وإقامة العدالة البيئية . اتخذ هذا ا البحث الأمريكيون الأفارقة كدر اسة حالة بسبب موقفهم الحساس ودور هم الرئيسي في التصدي للعنصرية البيئية في الولايات المتحدة، ولذلك فقد تطلب الأمر إجراء تحليل ومناقشات مستفيضة. الهدف من هذه القضية هو الكشف عما إذا كانت العنصرية البيئية حقيقية أم مجرد مصادفة داخل مجتمع الأمريكيين الأفارقة والذين تصادف إقامتهم في بيئة غير صحية و غير آمنة مقارنة بالمواطنين البيض ، وما إذا كان للحكومة الأمريكية دور في معالجة هذه المشكلة وحماية السكان أو تعزيز أوجه عدم المساواة البيئية. يمكن الاستنتاج من هذه الدر اسة أن العنصرية البيئية هي حقيقة قاسية في الولايات المتحدة. إذا كان للحكومة الأمريكية دور القامتهم في بيئة غير صحية و خير آمنة مقارنة بالمواطنين البيض ، وما إذا كان للحكومة الأمريكية دور الوامتهم في ميئة و حماية السكان أو تعزيز أوجه عدم المساواة البيئية. يمكن الاستنتاج من هذه الدر اسة أن العنصرية البيئية هي حقيقة قاسية في الولايات المتحدة. إلا انه من المرجح جدا أن يتغير هذا الدر اسة أن العنصرية البيئية هي حقيقة قاسية في الولايات المتحدة. إلا انه من المرجح جدا أن يتغير هذا الدر اسة أن العنصرية البيئية مي حقيقة قاسية في الولايات المتحدة. إلا انه من المرجح جدا أن يتغير هذا المراسة إلى المتعارية البيئية مي حقيقة قاسية في الولايات المتحدة. إلا منه من المرجح حدا أن يتغير هذا

Table of Contents

Introduction	1
Chapter One: Theorizing Environmental Racism and Environmental Justice	7
1.1. What is Environmental Racism?	7
1.1.1. From environmental Discrimination to Environmental Racism	7
1.1.2. Causes of Environmental Racism	10
1.1.2.1. Intentional Discrimination in Siting	10
1.1.2.2. Unequal Enforcement	11
1.1.2.3. Lack of Citizens' Power	12
1.1.2.4. Market Dynamics	13
1.2. The Conception of Environmental Justice	15
1.2.1. Environmental Justice	15
1.2.2. Environmental Equity versus Environmental Justice	16
1.2.3. Taxonomy of Environmental Justice	17
1.2.3.1. Distributive Environmental Justice	17
1.2.3.2. Procedural Environmental Justice	18
1.2.3.3. Corrective Environmental Justice	19
1.2.3.4. Social Environmental Justice	
1.3. Proving Environmental Discrimination	21
1.3.1. National Research	22
1.3.2. State Survey	25
1.3.3. Local Domains	
1.4. Limits of Mainstream Environmentalism	
Chapter Two: Anatomy of the Environmental Justice Movement	31
2.1. Historical Background of the Environmental Justice Movement	

2.2. Tributaries that Nourished the Stream of Environmental Justice Movement in the	
USA	35
2.2.1.The Civil Rights Movement	35
2.2.2. The Anti-toxics Movement	36
2.2.3. Native American Struggles	38
2.2.4. The Labor Movement	39
2.2.5. Academics	40
2.3. Government Responses to Environmental Justice Grassroots Activism	41
2.3.1. Executive order 12898	41
2.3.2. The Environmental Protection Agency Measures	44
2.3.3. Congressional Bills of Environmental Justice	45
2.4. Actions Strategies for Pursuing Environmental Justice	46
2.4.1. Direct Action	46
2.4.2. Social Networking	47
2.4.3. Litigation as Legal Action	48
2.5. An Established Environmental Justice Framework	49
Chapter Three: Faces of Environmental Racism within the African American	
Community: Toxics, Disputes and Resolutions	55
3.1. Houston, Texas	55
3.1.1. Black Houston: The Waste Land	56
3.1.2. Black Houston: A Quest of Environmental Justice	59
3.2. Chester, Pennsylvania	61
3.2.1. Chester as a Waste Magnet	62
3.2.2. Making the Case for Environmental Racism	65
3.3. Emelle, Sumter County, Alabama	70

Biblio	graphy	83
Concl	usion	80
	3.3.2. Opposition to Chemical Waste Management Landfill	75
	3.3.1. Emelle, the Cadillac of Waste	71

List of Abbreviations and Acronyms

C4	Campus Coalition Concerning Chester		
CAFO	Confined Animal Feeding Operations		
CBC	Congressional Black Caucus		
COSH	Committees on Occupational Safety and Health		
CRCQL	Chester Residents Concerned for Quality Living		
CWM	Chemical Waste Management Inc.		
DELCORA	Delaware County Regional Water Quality Control Authority		
DEP	Pennsylvania Department of Environmental Protection		
DSWA	Delaware offices of Solid Waste Authority		
EPA/	Environmental Protection Agency/ Unites States Environmental		
USEPA	Protection Agency		
GAO/	General Accounting Office/ Unites States General Accounting		
USGAO	Office		
IEN	Indigenous Environmental Network		
LULUs	Locally Unwanted Land Uses		
NAACP	National Association for the Advancement of Colored People		
NECAG	Northeast Community Action Group		
NEJAC	National Environmental Justice Advisory Council		
PCB	Polychlorinated Biphenyls		
PEON	Protect the Environment of Noxubee County		
RR&Z	Russell, Rea & Zappala		
SCLC	Southern Leadership Conference		
SCOPE	Sumter Countians Organized for the Protection of the Environment		
SNEEJ	Southern Network for Environmental and Economic Justice		
SRS	Soil Remediation System		
TDH	Texas Department of Health		
TRI	Toxic Release Inventory		
UCC-CRJ	United Church of Christ Commission for Racial Justice		
WEACT	West Harlem Environmental Action		

List of Tables

Table 1. Studies Proving Inequalities in the Distribution of Hazards by Income	
and race	21
Table 2. Congressional Bills on Environmental Justice	45
Table 3. Houston-owned Incinerators and Landfills Operating from 1920 to 1970	57
Table 4. Municipal Landfill Sites in Houston, Texas, 1970-1978	. 59

List of Figures

Figure1.Chemical Waste Management, Sumter County, Alabama and Racial Comp	osition
of the Neighboring Areas	72
Figure2. Where the Chemical Waste Management, Inc., User Fee Dollar Goes	74

Introduction

For four centuries now, racism has been a part of the American landscape, affecting racial minorities that have sustained the burden of discriminatory laws, social practices, criminal behavior and oppression over history. Another shade of racism labeled "Environmental Racism" has recently swamped the nation. As the US economy and industry developed, citizens are exposed to more environmental threats and problems, seemingly, racial groups including African Americans, Latinos, and Native Americans who are more likely to be affected by those environmental risks and hazards than whites. Minority communities have been targeted for the hosting of noxious facilities, such as landfills, incinerators, garbage dumps, and others Locally Unwanted Land Uses (LULUs). Ironically, they have had little success in blocking the siting of these unwanted waste facilities and the cleanup efforts are slower and less thorough, since most of them are underrepresented in public and private institutions that are normally best positioned to address the problem.

Grassroots activists influenced by the Civil Rights movement, labor movement and Women's movement, launched their own wave of protests to address the inequitable distribution of environmental hazards among the poor and minorities. Before long, this became known as the "Environmental Justice Movement" whose advocates hold that all people have the right to live in a clean and safe environment free from toxic waste and pollution that can adversely affect their well-being. What started off as local manifestations by people of color against environmental inequality, developed to a national movement gathering allies from different sectors of American society including members from the traditional white environmental organizations, scholars, and researchers...etc. Moreover, it received national recognition from former President Bill Clinton and the federal agencies. Soon, the movement's objectives were set as a part of the national political agenda. With the spread of Environmental Racism in different parts of the United States, and the emergence of the Environmental Justice Movement, attention is drawn towards environmental inequality experienced by poor and colored people. This revolution brought change to the political arena and serious measures are taken at the national level to deal with such a problem that remained offsite for a long time.

Focusing on this subject is not just to provide a mere description of its matter, but this research will focus on giving analytical explanation to reach a better understanding of the issue of Environmental Racism in a nation that is supposed to fight against all sorts of racism. It will also provide a deeper investigation on the Environmental Justice Movement.

The main objectives desired to be attained through the study are the focus on different shades of Environmental Racism menacing racial groups and the efforts of Environmental Justice Movement, the reach of a better explanation of the visions, expectations, and vigorous effects of the movement concerning the issue of disproportioned shares of environmental hazards, and finally the improvement of the current conditions of minorities in the USA.

In fact, the inquiry seeks to dig into the realm of the movement. It is imperative to explore whether the starting of this revolution has brought any refinement to resolve the environmental problems of minorities, or it has failed to give voice to those underrepresented groups.

The major concern of the study is to explore and find answers to the following set of questions: what is environmental racism and environmental justice? What are the causes of such environmental disparities? Is race the only predicator of environmental hazards? If not, what are the other factors? Why are environmental regulations vigorously enforced in some communities and not in others? Is the increase in toxic waste sites located in minority communities random or not? If not, what are the reasons? Among all minorities, who are the most affected ones? And why? Why did the Environmental Justice Movement emerge? What

was the overarching focus and concern of the movement back when it started? Why did not these issues elicit any organized protest for many years? How did the mainstream environmental organizations respond to environmental inequity before and after the start of the movement? What are the measures taken by the federal agencies to deal with the issue? Did the government side with affected communities or against them? How can one explain the stand of the US government concerning the issue of environmental racism?

The topic under discussion has attracted the attention of many scholars, researchers, and politicians. Before pursuing this study, and to display its importance, it is crucial to state a literature review by stressing some of the major scholarly works that have already tackled the issue of Environmental Racism against people of color and the Environmental Justice Movement.

The first valuable source is Ryan Holyfield's article "Defining Environmental Justice and Environmental Racism". It provides different definitions to different concepts that are essential to understanding the topic in hand and to do this research. In their book entitled *From Ground up - Environmental Racism and the Rise of the Environmental Justice Movement*, Luke Cole and Sheila Foster present a historical account of Environmental Justice Movement by tracing its roots and chronicling the individual stories of communities of color across the US that brought change to the nation's environmental laws. Robert D. Bullard's study "Solid Waste Sites and the Black Houston Community" is the first comprehensive account of eco-racism. The results of the study display that in Houston, Texas, black neighborhoods are targeted for siting LULUs. Yet no regulations or acts are passed to stop such inequality.

In *Dumping in Dixie: Race, Class, Environmental Quality,* R.D. Bullard examines the environmental inequalities that exist in the United States focusing on the South and chronicles the efforts of African Americans to deal with this social issue. He stresses that

race and class are related to Environmental Racism and argues that the causes behind the existence and the spread of such injustices among racial groups are: 1) being economically and politically weak. 2) Facing more sensitive issues which oblige them to disregard environmental inequalities. 3) Institutional racism that limited their chance to move to areas with fewer environmental injustice. The author asserts that the early Environmental Justice Movement, with its community organizing, scholarly writing, lobbying, and litigating produced some substantial gains for communities of color.

Confronting Environmental Racism: Voices from the Grassroots is another interesting work edited by Bullard, explores another extreme of the issue of Environmental Racism that racial groups face by extending the analysis and the scope of the study to discuss lead, pesticides and petrochemical plants that have a disproportionately large impact on communities of color. Contributors to this book hold that Environmental Justice Movement is not an anti-white movement. The advocates of this movement aim to build a multiracial and inclusive movement with the potential of transforming the political landscape of the nation.

The book *Race and the Incidence of Environmental Hazards: A Time for Discourse* edited by Bunyan Bryant and Paul Mohai provides a broad set of references and studies. It defines the notion of Environmental Justice and exposes environmental inequality within people of color communities. This collection of papers displays data and evidence underlying the claims of injustices, and provides case studies of discrimination with respect to consumption of fish with toxic contamination, incineration, uranium production...etc. Finally, the authors call for new authority and approaches to establish environmental justice.

In her book *Transforming Environmentalism: Warren County, PCBs, and the Origins of Environmental Justice*, Eileen McGurty gives account to one of the incidents that led to the formation of Environmental Justice Movement, the Warren County case. Back in 1978, African residents of Warren County, North Carolina, reacted to the state's plans to build a toxic waste landfill with a four-year resistance. The author points out that this campaign of nonviolent civil disobedience is a juncture which marks the transformation of environment problems from isolated issues to the present national concern around environmental equity. It is important to note that analytical approaches and qualitative methods are prevalent in this research work. Both of them are deemed essential tools for the accomplishment of this study. They help elucidate the impact of early protests against pollution patterns on the emergence of a nationally recognized movement, and delve into the causes, possible implications, attitudes, as well as initiatives behind the revolution put forward by the grassroots advocates. Furthermore, data is collected from a wide range of studies, since this subject is highly addressed by scholars and media, the descriptive approach is fundamental to clearly understand the gathered data.

The dissertation will include three chapters. The first chapter entitled "Theorizing Environmental Racism and Environmental Justice" deals with the conceptualization of terms "environmental racism" and "environmental justice", and the evolution of these concepts over time, which is the best way to put the work in its conceptual context. While another part gives account of the reasons that led to environmental racism. Also in this chapter, significance evidence is provided suggesting that low income and minorities' neighborhoods are disproportionately selected as home for nation's LULUs. The chapter eventually concludes with analysis of the role of mainstream environmentalism in addressing environmental inequalities in America.

Under the title "Anatomy of the Environmental Justice Movement", the second chapter aims to record the beginning of the environmental justice movement and the follow up events. Furthermore the chapter examines the responses of the government to the newly emerging movement. The chapter includes as well the main techniques that grassroots activists employ in their quest for justice and the established environmental justice framework.

The third chapter is the core of analysis in this work, entitled "Faces of Environmental Racism within the African American Community: Toxics, Disputes and Resolutions". Here African Americans will be put under scrutiny. The chapter examines how this small portion of American society used their strategies to deal with environmental racism through analyzing different cases in which blacks defied the polluting industries in their communities.

Chapter One

Theorizing Environmental Racism and Environmental Justice

Environmental justice is a new answer to the old question of environmental inequalities. Environmental racism has a long history of existence in the USA. However, it only gained momentum in the few past decades. The present chapter is devoted to the very conception of environmental racism and environmental justice and clarifies different aspects underlying the phrase "environmental justice". It explains the major causes that lead to the spread of environmental discrimination within minorities and lower incomes communities. The work progresses by shedding light on evidence proving the allegation of environmental inequalities. The chapter eventually reveals the limits of mainstream environmentalism.

1.1. What is Environmental Racism?

All people regardless of their race, ethnicity, class, or income have the right to live in a clean, healthy environment; this was reaffirmed by the Rio Declaration. Nevertheless, this right is not granted to all residents in the US where minorities live, work, and study in a dangerous and unhealthy environment filled with toxins, garbage, contaminating diseases and noxious facilities (Bullard "Race and Environmental Justice" 319). Those communities are forced to bear the burden of pollution problems of a whole nation; they are considered garbage dump in the USA. These ecological disparities and inequities in risk exposure were known as "Environmental Discrimination" and soon were labeled "Environmental Racism".

1.1.1. From Environmental Discrimination to Environmental Racism

Before the furtherance of the phrase "environmental racism", environmental discrimination was employed first. Environmental discrimination is a broad concept, used to refer to communities where their members are treated disparately, because of their race ethnicity, class, color, religion, or national origins (Bullard, Dumping in Dixie 14). The lawsuit *Margaret Bean et.al v. South-western Waste Management Corporation et al.* in 1979

was the first attempt to address environmental discrimination in US history. The plaintiffs filed a complaint seeking revocation of the permit granted by the Texas Health Department for constructing a solid waste facility in Eastern Houston, Texas (*Bean v. Southwestern Waste Management Corp.*). This permit was regarded as a violation of the Equal Protection Clause in the Fourteenth Amendment, since that neighborhood, according to Bullard, was "a very unlikely location for a garbage dump-except that over 82 percent of its residents were African American" (*Dumping in Dixie* xiv). The attempt to revoke the permit and the quest for injunction failed because the plaintiffs were unable to provide evidence and statistical data proving intentional discrimination in the siting decision. Consequently, the landfill was built (*Bean v. Southwestern Management Corp.*).

Despite many attempts of scholars and researchers to conceptualize the ecological disparities menacing minorities in the USA, it was not until the 1980s that the concept "environmental racism" appeared. In 1982 a series of protests started in Warren County, North Carolina, an exclusively rural African American area, to stop the siting of a toxic PCB (Polychlorinated biphenyls) landfill. Although these demonstrations did not stop the landfill construction, they paved the way for activists to mobilize and fight environmental disparities threatening racial groups and the concept "Environmental Racism" was coined. Following the 1982 protests in Warren County, North Carolina, the environmental activist Reverend Benjamin Chavis, Jr., executive director of the United Church of Christ's Commission on Racial Justice back then, would coin the term "Environmental racism". He defines it as:

The racial discrimination in environmental policy-making and enforcement of regulations and laws, the deliberate targeting of communities of color for toxic waste facilities, the official sanctioning of the presence of life threatening poisons and pollutants in communities of color, and the history of excluding people of color from leadership of the environmental movement. (qtd. in Mohai, Pellow and Roberts 406-407)

Chavis's definition implies that environmental racism is reinforced by government, legal and political institutions since they excluded minorities from taking part in the decision making process and any environmental movement. Besides such institutions neither provided equal protection of laws to racial groups against toxins nor preserved the ethnic minorities' share of profits and natural resources.

The previous definition has evoked an ongoing dispute among scholars, policymakers and lawyers about the exact term interpretation. Scholars have disagreed on the interpretation of the statement "deliberate targeting" focusing on the notion of intention. For some scholars such as Boerner and Lambert, the phrase indicates that the indictment of environmental racism requires evidence proving intentional discrimination (qtd. in Holifield 83). This means that they attribute "environmental racism" to the environmental outcomes caused by action with a discriminatory intent. Such decisions of siting hazardous facilities in poor and racial communities are not regarded as a pattern of environmental racism as there is no evidence of direct intentional discrimination in the selection of the site's location. Other experts like Bullard have different interpretation; they stressed that the presence of toxins in minority communities is a proof of racism and argue that establishing intentional discrimination as determinant of racism should be irrelevant because narrowing racism to a mere discriminatory intention is inappropriate. Bullard goes further to explain that environmental racism "refers to any policy, practice, or directive that differentially affects or disadvantages (whether intended or unintended) individuals, groups, or communities based on race or color" (Dumping in Dixie 98). Thus, he indicates that decisions and distributive patterns that burden homogenous communities disproportionately are direct evidence of environmental racism.

Until now, the meaning of "environmental racism" is still debatable among activists, policy makers, scholars and lawyers. Although neither did federal government agencies recognize the legitimacy of the concept nor adopt it as a guide to policy.

1.1.2. Causes of Environmental Racism

Minorities have sustained the burden of technological, economic and industrial development of a whole nation. Racial groups inhibit neighborhoods filled with toxic facilities threatening their health. So, a major question is to be asked in this situation: What are the factors or outside circumstances that were responsible for the spread of environmental injustice among minority communities? Tracing the roots of environmental racism, four possible factors were introduced as main causes of this phenomenon which are: intentional discrimination in siting, unequal enforcement of laws, the lack of citizen power and market dynamics.

1.1.2.1. Intentional Discrimination in Siting

Unlike white areas, minority and lower incomes communities have higher concentrations of pollutions, toxins, and contaminating diseases, this is mainly because of the waste and polluting industries located in those areas. While making siting decision, industrial management and governmental bodies seek to find a location with specific criteria as explained by Godsil and Freeman "the siting process commences when a corporation or governmental body begins a search for a proper location for a new facility. The "proper location " is determined by a number of considerations... [including] the physical requirements of the facility itself and ... the costs of siting, constructing and operating the facility"(qtd. in Park 662). The establishment of locally unwanted land uses (LULUs) requires larger surface area that is usually available in rural areas where poor and racial population lives. Minority community is regarded as the perfect spot for the siting of noxious facilities because of the availability of cheap land. Cheap land means fewer costs at the short and long terms. On top of that, residents of these communities can serve as labor force for operating those LULUs given their limited access to jobs.

Minority communities are intentionally targeted for the hosting of noxious facilities. The Cerrell report serves as evidence proving this claim as it states that: "All socioeconomic groupings tend to resent the nearby siting of major facilities, but middle and upper socioeconomic strata possess better resources to effectuate their opposition. Middle and higher socioeconomic strata neighborhoods should not fall within the one-mile and five-mile radius of the proposed site"(26).

This is affirmed by the study conducted by the United Church of Christ which concluded that it is "virtually impossible that the nation's commercial hazardous waste facilities are distributed disproportionately in minority communities merely by chance; therefore, in all likelihood underlying factors related to race play a role in the location of these facilities" (Mohai and Bryant, "Demographic Studies Reveal…" 11).

1.1.2.2. Unequal Enforcement

Unequal enforcement of laws and regulations presents another factor leading to environmental injustice within racial minorities. Advocates of the movement for environmental justice claim that racial and lower income populations are victims of disproportionate environmental harm because environmental rules and laws are not enforced equally. Race, income, political power and others are regarded as causes for this biased enforcement.

Unequal enforcement of regulations in colored communities can take two forms: (1) dissimilar detection speed and punishment for environmental violations and (2) unequal enforcement as a result of "compliance bias". Lavelle and Coyle affirm that "penalties against pollution law violators in minority areas are lower than those imposed for violations in largely white areas" (1). Their study discovered that "the government takes longer to address

hazards in minority communities, and it accepts solutions less stringent than those recommended by the scientific community" (1). The cleanup efforts and enforcement of regulatory laws are slower and less thorough in minor communities than in other white districts. *The National Law Journal* examined census data, the civil court case docket of the Environmental Protection Agency and found that "Penalties under hazardous waste laws at sites having the greatest white population were about 500 percent higher than penalties at sites with the greatest minority population. Hazardous waste, meanwhile, is the type of pollution experts say, is most concentrated in minority communities" (Lavelle and Coyle 2). The results show that "abandoned hazardous waste sites in minority areas take 20 percent longer to be placed on the national priority action list than those in white areas" (2).

Another form of unequal enforcement is systematic non-detection of environmental bridges or compliance bias (Konisky and Reenock 506). A study noted that the higher employment rate in a community the more effective inspection concerning environmental violation will be (Dion et al.15), since non-white communities suffer from a low rate of employment, inspection process is less thorough. The research on compliance bias is a controversial one. While some inquiry displays that bias in detection is not restricted to only to minor communities (Konisky103), another inquiry shows that the higher the percentage of minority residents is, the lower detection effects will be (Scholz and Wang 91). Consequently, if income level, racial origins and ethnicity of residents impact the enforcements and the execution of laws, waste managements and industrial administrators are probably going to target lower income and racial communities to ensure fewer costs.

1.1.2.3. Lack of Citizens' Power

Some researchers argue that environmental discrimination is correlated with social, economic and political powers (Karen 36). In other words, some communities are targeted for the hosting of noxious facilities because they are powerless and unable to defend themselves. Governmental directories and waste management administrators are aware that many communities will oppose the siting of their facilities in their neighborhoods; this will delay the construction process and even costs them more money to get the siting decision through. Therefore, waste management tends to avoid those communities that are able to raise a compelling opposition case and target lower incomes and racial communities who are underrepresented in decision making structures, have limited access to resources and the likelihood of them hiring lawyers and experts to defend their case is impossible. Even if they manage to present their case, they will fail eventually because their proponents are more powerful and wealthier. Recalling what the Cerrel report affirmed "[M]iddle and upper socioeconomic strata possess better resources to effectuate their opposition" (26).

1.1.2.4. Market Dynamics

With the environmental justice movement gaining more attention, the claims put forth by its advocates no longer serve their cause. Analysts considered that evidence presented as being based on "snapshot in time" and ineffective enough to prove the correlation between environmental hazards and minor communities' geographical features (Pastor, Sadd, and Hipp2). Economic critiques introduced Market Dynamics as unconventional explanation for environmental discrimination. Been and Gupta explain the theory affirming:

> Under [the theory of Market Dynamics], the presence of a polluting facility makes the host neighborhood less desirable because of the nuisance and risks the facility poses. Property values therefore fall, and those who move into the neighborhood are likely to be less wealthy and have fewer housing choices than those who leave the neighborhood. The siting of the facilities results, then, in a neighborhood with lower housing values, lower incomes, and higher percentages of those who face discrimination in the housing market primarily racial and ethnic minorities-than the neighborhood had before the siting. (27-28)

They equally assessed the theory by comparing the demographic characteristics of host and non-host communities, examining pre-siting census and another one after the siting of toxic facilities. The results showed that value of property grew slower in host neighborhoods than in non-host ones (28). This implies that the property value declined because of the siting of the LULUS. Simultaneously, the percentages of African Americans and Hispanics in those territories increased (28). Nonetheless, the evidence brought by analysts including Been and Gupta was not sufficient enough to prove the validity of this theory.

As mentioned above environmental injustice is caused by several factors including discriminatory siting of LULUs, unequal regulatory enforcement of laws, lack of citizens' power and market dynamics. Three out of these factors are manifestations of long existing institutional racism. Racism is deeply rooted in the US with regard to its explanation as a "conspicuous part of the American sociopolitical system and, as a result, black people in particular, and ethnic and racial minority groups of color, find themselves at a disadvantage in contemporary society" (Jones 47). Institutional racism leads to environmental racism, since most of the decisions related to the environment necessitate an extensive interaction among governmental, legal bodies and industrial actors. Consequently, while minorities suffer from decisions threatening their health and environment, whites enjoy better life quality at the expanse of racial groups.

Institutional barriers including limited access to jobs and education, discrimination in housing, and poor healthcare make it difficult for minorities to mobilize and find a way out of life threatening environments to a healthier neighborhood. It is not an accident that the people suffering from environmental racism are the ones with "crumbling infrastructure, deteriorating housing, inadequate public transport, chronic unemployment, high poverty, and an overloaded health care system" (Bryant 77). Institutional racism could be thought of as a tool for practicing environmental racism in the USA.

1.2. The Conception of Environmental Justice

"Environmental Justice" is a broad concept and it is difficult to set an exact definition for it. Originally environmental racism issue rests at the core of environmental justice. The understanding of "environmental" has evolved to include other broader notions of ecological, social, and health issues among many others. There was a shift in focus, from solely racial discrimination to wider consideration in terms of "fairness", "equity" "justice" and other resembling concepts.

1.2.1. Environmental Justice

The meaning of environmental justice is too difficult to be narrowed to single interpretation, as scholars and scientists approached it differently. Regardless of the ongoing debate to established a precise definition of the concept it is commonly accepted that eradicating environmental racism and achieving environmental equity are the goals of environmental justice. The 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". Fair treatment implies that all residents should not sustain disproportionate share of environmental risks caused by the government. Meaningful involvement means that all residents have the right to participate in the decision making processes regarding their health and environment, and their concerns are going to be taken into consideration while making decisions ("Environmental Justice: Learn About Environmental Justice").

This definition indicates that in order to achieve the goals of environmental justice, it is necessary that all members of community including racial minorities and lower incomes population must take part in the environmental decision-making process. It implies that the aspiration of environmental justice is to avoid inequities in risks exposure on minorities also known as distributive justice by means of fair treatment and meaningful involvement of all community residents in the process of decision making that is procedural justice.

1.2.2. Environmental Equity versus Environmental Justice

By the early 1990s, activists concerned with disproportionate effects of venomous pollution, managed to attract the attention of federal agencies. In the Opinion of EPA, this problem is one of "equity" and not of "racism" or "justice". Environmental equity is a broader concept which is used to describe the "…distribution of environmental risks across population groups and to EPA policy responses to these distributions. While there are many types of equity, all of which are important to EPA, this report focuses on racial minority and low-income populations" (EPA, *Environmental Equity* 2).

Scholars and scientists tend to interpret environmental equity differently, for example social science literature scrutinizes either the spatial-temporal distribution of benefits and burdens or the causal mechanism of inequity. The former refers to outcome equity which can be explained as those who yield for the establishment of waste management facilities, dumps, factories or any other LULUs should sustain the burden of those facilities rather than other population that do not profit from those facilities. Thus, the existence of LULUs in disadvantaged communities is an evidence of inequity. The latter is about process equity which is achieved when environmental, health, physical, legal, economic and political criteria are considered while locating LULUs, consequently the results are just and fair even if they generate more burdens than benefits to a given group (Greenberg 236).

The phrase "environmental equity" usually involves "the equal sharing of environmental and toxic burdens by all members of community and not the elimination of the burdens themselves" (qtd. in Cutter 250). Environmental justice is more of a political concept which unfolds some redeemable solutions to injustice forced on minority groups, i.e. the purpose of environmental justice is to completely eradicate pollution rather than redistributing it (Bullard, *Unequal Protection* 267). Therefore, the difference between the two concepts lays in the fact that environmental equity is restricted to distributive justice and does not take into account the causes and processes resulting in environmental injustice (procedural justice); but environmental justice encompasses both distributive and procedural justice.

1.2.3. Taxonomy of Environmental Justice

Environmental justice is a multidimensional concept which cannot be reduced merely to distributive justice. Many scholars notably including Bullard, Ikeme, Kaswan, Kuehen and Taylor introduced taxonomic approaches for examining the meaning of environmental justice. These approaches aim at widening the historical distributive perspectives to fit into the modern multidisciplinary tendencies of the concept. Analysis of different approaches shows that environmental justice encompasses distributive, procedural, corrective and social justice.

1.2.3.1. Distributive Environmental Justice

Distributive justice is one of the four aspects of environmental justice. It is defined as "the right to equal treatment, that is, to the same distribution of goods and opportunities as anyone else has or is given" (Dworkin 273). Aristotle was attributed for being the first to articulate the concept. As stated by him distributive justice is "the distribution of honor, wealth, and other divisible assets of the community which may be allotted among its members" (qtd. in Kuehn 10683). The major focus of this aspect is the fair distribution of outcomes rather than the process causing them.

In an environmental context, distributive justice involves equal distribution of burdens and benefits arising from environmental activities and programs. More precisely, it deals most commonly with the disproportionate environmental and health risks among people of color and lower incomes (Kaswan 230-33). Geographical equity as labeled by Dr. Bullard is concerned with the location and the spatial configuration of communities and their closeness to LULUs (*Dumping in Dixie*116). Executive Order 12898 on environmental justice exclusively concentrates on distributive justice concerns through orientating agencies to develop plans for distinguishing and fighting all sorts of disproportionate environmental and health risks on racial groups and lower incomes population (Par.1-103a).

In the context of environmental justice, distributive justice does not mean balancing risks and pollution burdens among community members; instead it seeks the total elimination of environmental threats and provides equal protection against them. In other words, distributive justice is accomplished through reducing environmental and health perils and not balancing and shifting them.

1.2.3.2. Procedural Environmental Justice

Environmental justice struggles tend to voice procedural justice concerns, which can be distinguished from distributive environmental justice. Procedural environmental justice is to give opportunity to all members of society regardless of their racial and socio-economic conditions, to participate in the decision making processes affecting their environment.

Procedural justice is usually defined as "the right to treatment as an equal. That is the right, not to an equal distribution of some good or opportunity, but to equal concern and respect in the political decision about how these goods and opportunities are to be distributed" (Dworkin 273). For Aristotle, procedural justice is having "equal share in ruling and being ruled" (qtd.in Kuehn 10688). Procedural justice is mainly concerned with fair involvement in decision making processes rather than the upshots of those processes. In Dr. Bullard's terms, "procedural equity" refers to a democratic process in which all members of community including minorities and lower incomes population are treated equally and protected against all environmental hazards (*Dumping in Dixie* 116). The Executive Order on environmental justice targets procedural justice matters and urges agencies to ensure the access of all citizens to information and decision making process related to their environment (Par.1-103a).

Despite all efforts to ensure procedural justice, it is obvious that lower incomes communities are subject to environmental risks and have limited access to decision making process, mainly because they are underrepresented among interest groups that prosecute against environmental authorities. This inability to function properly in decision making processes is considered procedural environmental injustice.

1.2.3.3. Corrective Environmental Justice

The third aspect of environmental justice is corrective justice which according to Kuehn comprises "fairness in the way punishment for law-breaking is assigned and damages inflicted on individuals and communities are addressed" (10693). In other words, corrective environmental justice means that the enforcement of laws is required if any sign of environmental infringement is proven to exist in disadvantaged communities; this is to ensure the elimination of all environmental injustices. Aristotle views this aspect as "rectificatory" in the sense that "it treats the parties as equals and asks only whether one has done and the other suffered wrong, and whether one has done and the other has suffered damage" (qtd.in Kuehn 10693). Corrective justice encompasses punishment against law breaking activities and includes reparation of those injustices resulting from breaking laws.

Executive Order 12898 on environmental justice unfolds corrective justice matters through orienting agencies toward promoting actions for enforcing environmental and health conditions in disadvantaged communities (par.1-103a, 3-302b). EPA's definition of environmental justice seeks corrective justice as it calls for "fair treatment . . . with respect to the development and enforcement of environmental laws, regulations, and policies" (EPA, "Environmental Justice"). Bullard in his framework on environmental justice calls for corrective justice by compensating, repairing existing damages and adjusting those inequities, while placing the burden proof on polluters (*Dumping in Dixie* 116).

Corrective justice comprises "retributive", "compensatory", "restorative" and "commutative" justice. It attempts environmental wellbeing, since environmental justice is more about taking responsibility for the damages caused. Consequently in this case, the appeal for Polluter Pays Principle (those responsible for causing pollution, are required to pay for the damage done) would be valid and just. It is worth mentioning that the calls for corrective justice unravel as well distributive justice concerns. Hence, both distributive justice and corrective justice are outcomes resulting from procedural justice.

1.2.3.4. Social Environmental Justice

Final aspect in Kuehn's taxonomic approach of environmental justice is social justice. He argues that "social justice" is the ultimate goal of the environmental justice movement (10698). Social justice is "that branch of the virtue of justice that moves us to use our best efforts to bring about a more just ordering of society- one in which people's needs are more fully met"(Rodes 620). Other scholars contend that environmental justice movement's ultimate focus is ensuring social justice regarding environmental issues. Social justice aims at "first, that the members of every class have enough resources and enough power to live as befits human beings, and second, that the privileged classes, whoever they are, be accountable to the wider society for the way they use their advantage" (Rodes 626). All members of society regardless of the civil and financial status ought to have access to resources needed for securing better life. According to Bullard, social equity is related to the consideration of social factors while making environmental decisions (*Dumping in Dixie* 116).

In comparison to other aspects of environmental justice, social justice is the most controversial one as governmental officials are unable to reconsider the issues of environmental injustice to a broader scope (EPA, *Reducing Risk for all Communities* 2). Still, the Presidential Executive Order takes into consideration social justice by examining the social and economic implications of federal activities not only the environmental effects of those actions (par.1-103a).

To sum up, environmental justice is a complex term with a wide scope which includes distributive, procedural, corrective, and social justice. It is necessary to reflect all these aspects to ensure the attainment of environmental justice.

1.3. Proving Environmental Discrimination

In the United States, racial and lower income communities sustained higher rates of diseases including cancer and asthma, birth defects and mortality than white counterparts. Advocates of environmental justice claim that those poor health conditions are caused by the large number of noxious facilities located in their neighborhoods and the risks and harm they generate. Many studies were carried out to test the validity of the claim advanced by the activists asking for environmental justice. The empirical research and results are diverse mainly because of four methodological factors: the environmental threat chosen for analysis, the geographic scale or areal unit chosen for measurement, the subpopulation selected, and the time frame (Cutter 253). The following table presents a sample of studies confirming the claim that minorities and lower income communities are victims of environmental discrimination.

Table 1

Study	Subject of the Study	Scope of theStudy	Equal Distribution by Income	Equal Distribution by Race
USGAO 1983	Hazardous Waste	Nation	No	No
UCC-CRJ 1987	Hazardous Waste	Nation	No	No
FATSCR 1988	Lead exposure	Nation	No	No
Costner and Thornton 1990	Incinerators	Nation	No	No
Clarck et al. 2014	Air pollution	Nation	No	No
Apelberg et al. 2005	Air pollution	State	No	No
Mirabelli et al. 2006	Air pollution	State	No	No
Wing et al. 2008	Air pollution	State	No	No
Bullard 1983	Solid Waste	Urban area	No	No
Burke 1993	Hazardous waste	Urban area	No	No
Abeola 1994	Hazardous waste	Urban area	No	No

Studies Proving Inequalities in the Distribution of Hazards by Income and Race.

Source: Compilation of Different Sources by the Student.

Table 1 includes summary of eleven selected studies which provide methodical data on the distribution of environmental hazards and their relation with social factors. In examining the distributions of these hazards by race, usually the percentage of minority has been employed. However, when the factor under study is income, the method that has been used is to correlate the family income or the average household in US Census tracts or Zip code area with the degree of exposure to toxins.

An examination of the table reveals much information; it is clear that the studies vary in scope, some studies focus exclusively on a single area, or focus on a series of urban areas; still there are studies that are national in scope. All the studies have proven that inequitable distributions of hazards by race and income do exist.

1.3.1. National Research

In June1983, The US General Accounting Office conducted a study on offsite landfills found is EPA's Region IV which comprises Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina and Tennessee. The GAO study revealed a striking relation between the location of offsite landfills and the racial and socio-economic conditions of the surrounding communities. Additionally, the study found that there are four offsite hazards waste landfills in four states of the Region IV, three out of four landfills were located in predominantly black communities who had income below the poverty level (*Siting of Hazardous Waste Landfills* ...1-2).

In 1986, the United Church of Christ Commission for Racial Justice (UCC-CRJ) carried out a comprehensive research investigating the correlation between the locations of hazardous waste sites and socio-demographic characteristics of communities near them (*Toxic Wastes and Race in the United States* xii). The research is composed of two crosssectional studies; the first study focused on commercial hazardous waste facilities and the second one on toxic waste sites both operating and abandoned. In 1987, the UCC-CRJ released its research report which recognized race as the most significant predicator in the siting of noxious facilities than other examined factories including income (*Toxic Wastes and Race in the United States* xiii).

The major findings of the first study revealed that a large number of commercial toxic waste facilities were located in communities with the highest percentage of racial and ethnic residents. In communities hosting two or more facilities or one out of five largest landfills in the nation, the median percentage of people of color was three times higher than in non-host communities and in communities with one commercial toxic waste facility, the median percentage of minorities was twice higher than communities free form commercial toxic waste facility. Race is proven to be a more accurate factor in the siting of commercial toxic waste facilities although other socio-economic conditions have a significant role as well. For the second study, the results displayed that three out of five blacks and Hispanics resided communities with uncontrolled toxic waste sites, over 15 million blacks and over 8 million Hispanics lived in communities with at least one uncontrolled toxic waste sites, and African Americans were massively overrepresented in the population of metropolises with the greatest number of abandoned toxic waste sites (Memphis, St Louis, Houston, Cleveland, Chicago, Atlanta. Roughly, half of Asians/Pacific Islanders and American Indians population reside communities with uncontrolled toxic waste sites (Toxic Wastes and Race in the United *States* xiii-xiv).

In 1990, Greenpeace released its report *Playing with Fire* on hazardous waste incinerators. The findings evinced that the ratio of minority population in communities with existing incinerators was 89 percent higher than national average. In communities hosting incinerators, average income is 15 percent lower than the national average, property values are 38 percent below national average. In communities where incinerators are proposed minority population is 60 percent higher than the national average, and property values are 35 percent below the national average in communities where incinerators are proposed (Costner and Thornton 48-49).

Another nation-wide study which proved the validity of the allegation that minorities and lower income communities bear a disproportionate share of environmental harm is The 1988 Federal Agency for Toxic Substances and Disease Registry's study on lead poisoning in children. The findings showed that children aged 5 years and younger residing in urban areas with approximately one million residents, the percentage of blacks with excessive levels of lead in their blood is higher than the percentages of whites with excessive levels (The Nature and Extent of Lead Poisoning... 1-12). Families with annual income less than \$6000, about 68 percent of black children sustain lead poisoning, while white children only 36 percent sustain lead poisoning. Families with annual income between \$6000 and \$14999, approximately 54 percent of black children suffer lead poisoning, while only 23 percent of white children suffer lead poisoning. In families earning more than \$15000 per year, black children are more exposed to lead poisoning than whites (38 percent to 12percent). It is evident that even when earning the same annual income, black children are twice or three times more probably to bear lead poisoning (V-7). Thus, it is clear that regardless of the social class and the economic status of the residents, they are still going to be subjects to environmental racism because of their race, so race is the most significant variable of environmental hazards.

Air pollution is another dangerous environmental risk menacing the health of the US residents. Clark et al. who administered a study on air pollution have particularly examined the concentration of Nitrogen Dioxide (NO2) in residential outdoor in the USA including rural and urban areas. The study aimed to detect the locations receiving higher priority environmental justice and equality concerns attributed to NO2 and to identify whether there is a correlation between social-economic status (SES) of the communities and the concentration of NO2 in those communities (1). The results showed that there are disparities in the exposure to NO2 among residents, for instance the average of NO2 concentration is

higher for nonwhite than for whites. Similarly, the average of NO2 concentration for lower income nonwhite residents is higher than for high-income white residents. Likewise, people below poverty level are more exposed to NO2 than people above poverty level ("National Patterns in Environmental Injustice and Inequality" 4).

1.3.2. State Survey

In addition to national research reviews, local research as well contributed to proving the existence of disparities in exposure to toxins and hazards within United States communities. Although local studies are limited, narrow and more contextualized than national ones, they help fortifying the cause for environmental justice.

Apelberg, Buckley, and White focused their study on Maryland. They analyzed the EPA's National Air Toxics Assessment of 1996, and the US Census 2000 data; to reveal the correlation between the racial and socio-economic aspects of census tracts and estimated cancer risk caused by air toxics. The findings displayed that for every increase in number of white residents in the census tracts, a decrease in estimated cancer risk is recorded. However, for every increase in number of black residents in census tracts, an increase in estimated cancer risks is recorded. The highest quartile of African American residence census tracts were three times more likely to be exposed to air toxic hazards than those in the lowest quartile, while for highest quartile. In the lowest quartile of average household income, an increase in percentage of African American is accompanied with an increase in risk (695-696).

Swipe operations are dangerous and present a potential threat to residents' health; they even provoke air, water and soil pollution. Given the harm, these operations may generate, many studies focused exclusively on them, for instance Mirabelli et al. examined the degree of public schools' students exposure to airborne affluent caused by swine operations in North Carolina, and assessed the correlation between swine confined animal feeding operations (CAFO) exposure and the racial and socio-economic characteristics of schools. Mirabelli et al. found that middle schools in North Carolina with less than 63 percent of white students and equal or more than 47 percent receiving subsidized lunches were closer to CAFO's (4.9miles) than the rest of schools (10.8 miles), and they were more likely to be situated within three miles of swine operation (591).

Another state-wide analysis focusing exclusively on swine operations in eastern North Carolina is

that of Steve Wing et al. They revealed that there is a relation between resulting pollution, the health and living standards in communities of hog operations. Analysis of the findings made it clear that the concentration of hog operations is higher in area resided by poor, lower income populations and people of color Consequently, the poor and people of color bear a disproportionate share of industrial hog operation risks (Wing et al. 1390).

1.3.3. Local Domains

In addition to national and local researches, metro-level studies tend to investigate the possibility of the existence of environmental disparities within cities. One of those studies is Robert Bullard's study on solid waste facilities in Houston, Texas. Among the recorded findings, between 1953 and1978 five out of six municipal landfills that had been granted permit by the Texas Department of Health were located in predominately black neighborhood ("Solid Waste Sites and Black Houston Community" 282). Eleven out of twenty-one solid waste sites permitted by Texas Department of Health Between 1970 and 1978 were located in black neighborhoods, although blacks constituted a small portion of the whole population of Houston (26 percent in 1970, 27.8 percent in 1978) (281). Between 1970 and 1978, six landfills owned by Browning Ferries Industries were sited in predominately black neighborhoods (283). So, over the course of fifty years, black neighborhoods were intentionally selected for the hosting of solid waste landfills. Bullard asserts that these disparities in siting take place because of lack of zoning, institutional racism and exclusion of black residents from taking part in the decision making processes (273).

Burke administered another metro-study on Toxic Release Inventory (TRI) Sites in Los Angeles, California. He relied on census tracts as unit for analysis. The examination of the results revealed that there is correlation between the number of facilities within census tracts and the number of minority residents and the income of residents (Maantay162).

In 1994, Adeola published a paper of his metro-study on toxic wastes and health problems in Baton Rouge, Louisiana. He conducted a telephone interview with randomly selected residents to test different hypotheses including "race is the most important factor determining residence proximity to hazardous waste sites and there is inequitable distribution of environmental hazards by race" (105). The results affirmed that there was a correlation between residents' race and their closeness to noxious facilities; also blacks were more likely to live near hazardous waste facilities than whites (122).

This significant evidence is nothing but a testimony proving that with regard to the types of toxins: solid waste, hazardous waste, lead poisoning and air pollution, or different LULUs; incinerators, and landfill, all seem to find a way to get into minority and poor communities, especially black areas.

1.4. Limits of Mainstream Environmentalism

The mainstream environmental movement and the environmental justice movement would be regarded as allies, since environmental concerns rest at the core of these two movements. Mainstream environmental movement is a social movement concerned with environmental protection and preservation, the environmental justice movement is concerned with the equal distribution of environmental goods and fair involvement in decision making processes, which could be seen as two features of one comprising movement. Nonetheless, it is not the case, the two movements are more of rivals than allies and the relationship between the two is one characterized with dispute and disagreement let alone cooperation.

Advocates of environmental justice criticized mainstream environmentalism presented

by the Group of Ten² with racism, bias and characterized them "as white, often male, middle and upper-class, primarily concerned with wilderness preservation and conservation, and insensitive to-or at least ill-equipped to deal with-the interests of minorities." In addition, they hold that minorities' issues rest in the bottom of priority list of traditional environmental groups (Melosi 5-6). Additionally, mainstream environmental groups are accused of prioritizing issues related to wildlife than the actual needs and interests of human, as stated by Boxing "are more interested in saving the habitats of birds than in the construction of low-income housing" (qtd.in Hughes 52). This charge is concluded by Bryant and Mohai who hold that:

> [Environmentalists] are viewed with suspicion by people of color, particularly as national environmental organizations try to fashion an urban agenda in the 1990s. To champion old growth forests or the protection of the snail darter or the habitat of spotted owls without championing clean safe urban environments or improved habitats of the homeless, does not bode well for future relation between environmentalists and people of color, and with the poor. (qtd. in Melosi 6)

Over the course of US history, members of traditional environmental groups are those who have access to education, political power and economic resources, hence excluding poor and racial groups. Traditional ecological groups are overwhelming whites and this was proved in the report *The State of Diversity in Environmental Organizations* which revealed that although minorities constituted nearly 40 percent of the US population, they accounted for only 16 percent (222 out 1317 workers) of the whole body of environmental organizations (Taylor 2). Further supported by Frederic D. Krupp, the executive director of the Environmental Defense Fund asserts that "The truth is that environmental groups have done a miserable job of reaching out to minorities" (qtd. in Hughes 52).

By the early 1990's, the Group of Ten received letters of accusations from the Southwest Organizing Project, and the Gulf Coast Tenant Leadership Development Projec that acknowledged that "Racism and the 'whiteness' of the environmental movement is their Achilles heel" (qtd. in Shabecoff 47). The letters alleged that environmental groups have excluded advocates and delegates of people of color from participating in the decisions making processes. They accused the Group of Ten of being irresponsible toward minorities' issues, ignorant and taking part in the ecological exploitation of racial groups in the USA (Pezzullo and Sandler 4).

Suffering from environmental degradation and oppression, exposure to toxic and radioactive waste, and the insensitive of policies and regulations toward environmental inequalities, people of color and lower income communities started their fight against environmental racism and challenged the mainstream environmental movement, and the established government and its discriminatory policies. Those groups sought to improve their living conditions and to achieve environmental justice. Soon these local experiences of inequities gave birth to a coherent and powerful environment justice movement that brought about massive improvement on the national and local levels.

Endnotes

1. Rio Declaration on Environment and Development was compiled at the United Nations Conference for Environment and Development in Rio de Janeiro in 1992. The declaration is composed of 27 principles promoting the importance of preserving environment and serves as guide for UN countries to achieve sustainable development. The principles are recorded in the report of the conference (United Nations).

2."The Group of Ten" or "Big Ten" is the nickname of the major traditional environmental organizations during the Reagan Administration. It comprised the Audubon Society, Environmental Defense Fund, Friends of the Earth, Izaak Walton League, National Parks and Conservation Association, National Wildlife Federation, Natural Resource Defense Council, Sierra Club, Sierra Club Legal Defense Fund, and The Wilderness Society (NKemdirim).

Chapter Two

Anatomy of the Environmental Justice Movement

After having explained in the previous chapter the actual meaning of environmental racism, environmental justice, and the main causes of environmental racism, and provided different empirical evidences on ecological disparities. Three objectives are set in this chapter: To chronicle the emergence of the environmental justice movement and the major events that followed, to consider the main tributaries that aided the movement, and to report the responses of the US government to grassroots activism. Another part in this chapter is devoted to explain the main strategies employed by the activists and residents in their long struggle for environmental justice. The chapter ends with revealing the framework of environmental justice.

2.1. Historical Background of the Environmental Justice Movement in the USA

For a long time, minorities in the US were treated as a sacrifice zone or garbage dump, their neighborhood were deliberately targeted for the hosting of LULUs threatening their health and environment. So while whites were enjoying better quality life, minorities and low income communities were trapped in area contaminated with diseases, filled with toxins and pollution. Facing the government neglect, racial groups had no other alternative but to fight for their right to live in a clean and healthy environment. Consequently, local groups launched a series of manifestations complaining against the siting of LULUs in their neighborhoods.

In the early 1960s under the leadership of Cesar Chavez, Latino farm workers struggled to secure workplace rights and protection from harmful pesticides in the farm field San Joaquin Valley in California (White 89). Similarly, in 1967 at Texas Southern University, African American students held a demonstration complaining about a City Garbage Dump in their neighborhood that caused the death of an eight-year old girl. Soon the protest turned into a disorder, the police were hurled with rocks and bottles, gunshots were fired causing the dead of a police officer, many leaders of the protest were jailed and about 500 students were cleared from their dorm rooms (Braimah). Again, in New York City, particularly in West Harlem, residents resisted the construction of sewage treatment plant in their community but they failed (White 89). However, much of the early activism of the1970s was not successful; it did not manage to attract the attention of governmental and legal bodies, policymakers and media as it was isolated, limited to local issues and comprised grassroots individuals.

The early 1980s marked a change in US history; after many years of attempts, a nationwide environmental justice movement emerged. In 1982, Warren County, a small rural overwhelming African American community (60 percent blacks according to US Census of 1980), was selected by the state of North Carolina to host toxic waste landfill. The Polychlorinated Biphenyl (PCB) landfill would operate as a disposal site for 30000 cubic yards of PCBs contaminated soil that was dumped illegally along the roadways of fourteen counties throughout the state (Bullard, *Dumping in Dixie* 30). The state of North Carolina ordered for the landfill to be built, despite the fact that the site did not fit to the EPA guidelines, as described by Ken Geiser and Gerry Waneck:

The site at Afton was not even scientifically the most suitable. The water table of Afton, North Carolina, (site of the landfill) is only 5-10 feet below the surface, and the residents of the community derive all of their drinking water from local wells. Only the most optimistic could believe that the Afton landfill will not eventually leach into the groundwater. Unless a more permanent solution is found, it will only be a matter of time before the PCBs end up in these people's wells. (17)

In response to the state's decision, civil rights activists including the National

Association for the Advancement of Colored People (NAACP), United Church of Christ Commission for Racial Justice (UCC-CRJ), the Southern Leadership Conference (SCLC) and Congressional Black Caucus (CBC), along with other environmental activists organized demonstrations complaining about the construction of the landfill. Political leaders, African American civil rights activists, and local residents marched in a protest demonstrations and blocked the roads for dump trucks that were loaded with toxins. The demonstrations resulted in the arrest of 500 protestors including Dr. Benjamin F. Chavis, the then executive director of UCC-CRJ, Congressman Walter Fauntroy, and Dr. Joseph Lowery (Wegner).Although the protests of Warren County were not successful in preventing the landfill construction, they provided the catalyst for the rise of environmental justice movement. By many accounts these protests are recognized as the movement birthplace.

Warren County struggle was not the first of its kind in the US, however, unlike the previous isolated struggles, it triggered a national movement. Probably because this event managed to attract the attention of various citizens around the states and the actual notion of environmental injustice and of a new pattern of racism started to develop. Additionally, the arrest of the protestors made it clear that it is not merely an environmental issue but rather one of civil rights. On this account, residents began to think that it was everyone's right as American citizens and as human beings to live in a healthy environment and no one should be regarded as a sacrifice zone.

Prompted by the Warren County incident, scholars and experts began conducting research, investigating the connection between hazardous waste-siting decision and race. Two studies were published, one by the United States General Accounting Office in 1983 that was requested by Delegate to Congress Walter Fauntroy, who was arrested in the protests of Warren County, and Congressman James Florio, and the other by the UC-CRJ in 1987. The two studies provided the necessary empirical evidence for the claims of environmental inequity.

In January 1990, School of Natural Resources in Michigan University held a conference on "Race and the Incidence of Environmental Hazards", gathering together scholar-activists working on the issue of environmental inequalities, who presented potential solutions to the debates of environmental justice. The conference resulted in the formation of Michigan Coalition that initiated a series of discussion with the EPA on the Environmental Justice Policy ("Environmental Justice in Michigan").

A national movement was gaining momentum. In October 1991, the First National People of Color Environmental Leadership Summit took place in Washington DC. It brought together over 1000 grassroots from all 50 states including Alaska, and Hawaii. Even delegates from Porto Rico, Canada, South and Central America and Marshall Islands attended the four days event. The summit was held to exchange action procedures and plans and to come up with redeemable solutions to environmental problems particularly threatening people of color in United States and around the world. The Conferees adopted 17 "principles of environmental justice" as an inclusive platform for a global environmental justice movement (Bullard, "Environmental Justice in the 21st Century" 152). The ratified principles clarify the movement vision and goals, and connect social, environmental and labor justice concerns. The principles are related to environmental problems affecting residents, nature, urban and rural surroundings. They evolve around six main areas comprising "(a) ecological principles, (b) justice and environment rights, (c) autonomy/self-determination, (d) corporate community relations, (e) policy, politics, and economic processes, and (f) social movement building" (Taylor 538-539).

A new shade of environmental activism had appeared in communities of color and what started off as local protests against siting of LULUs developed to a potent movement. It was obvious that toxic contamination issues were no longer the main focus; Activists an advocates of environmental equity widened their movement scope in order to solve more global environmental problems that posit a threat to public wellbeing.

2.2. Tributaries that Nourished the Stream of Environmental Justice Movement in the USA

Over history, minorities had a vulnerable position in the USA; they were subject to exploitation, constantly marginalized, discriminated, segregated, and denied the basic rights of life. Fed up with these miserable conditions, racial groups started mobilizing themselves and launched many movements such as Native American struggles, the Civil Rights movement, anti-toxics movement and labor movement among others, to restore their deprived rights and to ask for social equity. All these movements contributed to the newly emerging environmental justice movement, as explained by Cole and Foster, who described the movement as a river with various tributaries. Those tributaries include: the Civil Rights movement, the anti-toxics movement, labor movement, Native American Struggles, and academics (20).

2.2.1. The Civil Rights Movement

A major contributor to the environmental justice movement is the Civil Rights movement of the1950s, 1960s, and 1970s. As both movement share the same goals which is the pursuit of "social justice, equal protection and an end to institutional discrimination" (Roberts 265). Through the civil rights movement, a large number of African American residents and their allies requested social reforms relying on nonviolent grassroots activism. The civil rights movement was headed by church leaders specifically Martin Luther King, Jr. and Ralph Abernathy.

Likewise the environmental justice movement was a church based one; when it embarked, civil rights leaders were among the advocates calling for environmental equity. The warren County protests in 1982 against the PCB dump were organized by church officials and civil rights activists such as Reverend Benjamin Chavis who had a major role in the struggle against environmental racism. He was the executive director of UCC-CRJ which published the landmark study *Toxic Wastes and Race in the United States* that catalyzed the environmental justice movement.

The civil rights activists have a massive impact on the fight for environmental justice struggle. Participants in early activism against ecological disparities held that their work was "a synthesis of the environmental movement and the civil rights movement" (Rose-Aquina). Those activists' previous experiences of discrimination and oppression under the Jim Craw Laws¹ enabled them to recognize that the disproportionate impacts of environmental hazards were not merely a coincidence by rather a new pattern of racism that particularly targets the vulnerable people of color. Therefore, they acknowledged that it was high time to make a move. They adopted the same tactics such as organizing marches, protests, political pressure and nonviolent civil disobedience to fight environmental racism like what happened in Warren County, where protesters were jailed because of civil disobedience. This incident was a parallel to another civil disobedience that took place in the 1960s.

The involvement of civil rights activists did not stop only in organizing protests, manifestation and participating in grassroots activism against environmental disparities, they also helped in voicing of environmental justice at a national level. In 1992, a major participant in the protests of the 1960s, Representative John Lewis of Georgia introduced the Environmental Justice Act (Cole and Foster 21).

2.2.2. The Anti-toxics Movement

The Anti-toxics movement against toxic dumps represents another major tributary to the environmental justice movement. Minorities' areas were considered as home for hosting noxious facilities of a whole nation. Landfills, incinerators and hazardous waste facilities were spread throughout minority communities, it is virtually impossible to locate a single racial group territory without waste facility. From the1970s the proliferation of LULUs sparked the Anti-toxics movement, a populist movement against the siting and the operating of hazardous facilities. The movement gained national prominence with the pollution problem of Love Canal, a community near Niagara Falls, New York.

Tracing the history of the Love Canal, in 1892, a project was supposed to be held on the area to link the upper and the lower rivers of Niagara. By 1920, the project failed and Love canal became a city dump. In the 1940s the Hooker Chemical Company bought the territory and used it as a dumping site of chemicals from the manufacturing of dyes, perfumes and other products. Later, the board of education in Niagara purchased the land from the company and established schools and house sites. By the 1970s, many news of health problems began to circulate; babies born with birth defects, many children had cancer, several cases of miscarriage were recorded; residents specially women who worried about their families and children safety and health started investigating the matter, in 1976, a private research group "Calspan" discovered chemical leak at Love Canal (Vaughn 149). Two years later, Michael H. Brown, a Niagara Gazette reporter wrote articles revealing that the chemicals were contaminated. Hearing this, Gibbs Lois soon the leader of the movement along with other residents got suspicious that these chemicals were the reason of their children illnesses, they tried to trace the roots of chemicals release, only to find out that the whole neighborhood had been built on a waste dump (Vaughn 149).

Love Canal residents pressured the State of New York to take action. In August 1978 President Jimmy Carter declared it as a disaster area and Governor Hugh Carey signed an evacuation order for all citizens living in the territory. Gibbs Lois went further and formed the Citizens Clearinghouse for Hazardous Wastes, an entity that helped many local groups to limit waste dumping (Sonneborn65-66). In the mid-1980s, anti-toxics local groups joined together and formed National Toxics Campaign under the leadership of John O'Connor that worked toward reducing pesticides and toxics in the environment (Vaughn150). Anti-toxics activists did not limit themselves only to local actions; they enrolled in political making debate, by introducing the idea of "Pollution Prevention", an indirect plan to stop the production of toxics waste through putting an end to the use of chemicals in industry (Cole and Foster 23).

Love Canal disaster among others reinforced the environmental justice advocates conception of the environment as the place "where we live, work, and play". The anti-toxics movement assisted the movement for environmental justice by bringing its direct actions to the realm of the movement and experience of forming national networks out of local fragmented groups. Moreover, anti-toxics activism helped the advocates of environmental equity to discover the oppressive nature of economic structure that would pollute some communities with toxics (Cole and Foster 23).

2.2.3. Native American Struggles

Since their arrival to American, Europeans had exploited the indigenous people, who sustained a legacy of displacement and genocide. Environmental exploitation was a major concern for Native American residents. They struggled for self-determination in land-use decision for several years. Thus, in the opinion of many scholars this makes them the first victims of environmental inequity (Cole and Foster 26).

Form the 1960s to the 1970s, Native American activism stands as "the precursor to today's organizing around environmental issues by Indians on and off the reservations" (Merchant 282). The tribal communities helped the environmental justice movement in developing the concept of self-determination, as captured in the Credo "We Speak for Ourselves" which stems out of their history of struggle for rights to native lands and cultural practices, with the federal and state government (Cole and Foster 27). The Credo acknowledges the communities' right to determine their own destinies rather than being

victims to government and corporate decision making (Cable, Mix and Hasting). Likewise, the Native American activists aided the movement for ecological justice by forming the Indigenous Environmental Network (IEN), a coalition of more than forty grassroots and Indian Environmental Justice groups. It worked to develop mechanisms to protect sacred sites, land, air and natural resources.

2.2.4. The Labor Movement

Another tributary to the stream of environmental justice movement is the labor movement. The labor movement that often aligns with the environmental equity work; in fact it is one of the environmental justice movement precursors. Much of labor activism has been of great assistance to the environmental justice objectives. First, the quest for self determination in the environmental justice movement continued to evolve with the labor movement. An excellent example is the Latino farm workers' fight for worker's autonomy and better working conditions. In the1960s Cesar Chavez and Dolores Huerta gathered the workers of the farm land in San Joaquin, California, and organized house meeting. These early actions led to the famous Delano grape strike in 1965, a labor strike against grape owners in California. After five years, the strike culminated with the signing of contract between grape owners and the United Farm Workers (Pulido and Pena 39).

Second contribution would be the Public Health Activism of the1970s, also known as Occupational Safety and Health movement which started with the rise of Committees on Occupational Safety and Health (COSH). It worked toward promoting and advocating Workers' health and safety especially in regions that lack union representation. Later, industrial Union carried the mission for securing better public health; those unions sought to improve industrial plants, and to guarantee safer jobs and clean work places. Through its ongoing fight for safe and healthy work places, the labor movement provided the environmental justice movement with more organizational strategies (Cole and Foster 28).

2.2.5. Academics

Despite the nature of the environmental justice movement as being driven by social powers, it is worth mentioning that academics had a major role in the early phases of the movement for environmental justice. Starting from the1960s, scholars working solely began to investigate the roots of environmental hazards. Their works revealed that racial groups and lower income population bore a disproportionate share of environmental toxins compared to white counterparts (Mohai and Bryant, "Environmental Racism: Reviewing the Evidence"). Dr Bullard, a prominent figure among those scholars, attempted to examine the relationship between race and the patterns of land use. His investigation resulted in the ground breaking work "Dumping in Dixie: Race, Class, and Environmental Quality" in 1990 as the first academic text on Environmental Justice.

Bullard and other scholars' publications built the empirical credibility for the environmental justice movement. Academics continued to serve the cause, they wrote articles, and extensive bibliographies and created public websites, and national networking that raised public awareness and secured the necessary abilities and expertise to the struggles of groups and even legitimized them (Cole and Foster 25).

Efforts of academics continue to flourish. In 1990 at the Michigan Conference on "Race and the Incidence of Environmental Hazards" scholars met together and discussed their findings. The conferees decided to take their work to the national level seeking federal action; some professors, later known as the Michigan Coalition, wrote letters to Louis Sullivan, the Secretary of the US Department and Human Resources and to Reilly William, Head of (EPA). In the letters, the group members presented some of their findings concerning the disproportionate impacts of environmental hazards and asked for a meeting with officials to review the matter and to arrive to redeemable solutions (Cole and Foster 24).

2.3. Government Responses to Environmental Justice Activism

For several decades, communities of color were victims of inequitable environmental

quality, deprived of the protection of the federal, state and local governmental agencies. These communities were convinced that no solution would be presented by the government to solve the issue; hence, they started their own wave of activism to fight environmental discrimination and challenged the current environmental protection systems. By 1990, the advocates of environmental justice managed to attract the attention of government which started responding to those environmental inequalities.

2.3.1. Executive Order 12898

In an attempt to redress environmental injustice, President Bill Clinton in February 1994, signed Executive Order 12898 entitled "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" which aimed at uniting federal agencies to address environmental justice issues, as well as helping in doing the necessary research to eradicate environmental injustice. The Order acknowledged the right of all residents including minority and lower income population not to endure "disproportionately high and adverse human health or environmental effects of its programs, policies, and activities" (Par. 1-101). Executive Order 12898 urged the lawful siting of factories, landfills, roads and any other LULUs, aimed at increasing citizens' power to participate in decision making processes concerning their environment, and it sought to remedy environmental injustice.

Regardless of its goals and initiative, the Order received much criticism. All Executive Orders are considered symbolic and not as equally effective as legislative announcements, as elucidated by Foreman: "Presidents rely on Executive Orders as a relatively uncontested way to instruct the bureaucracy and sometimes to make largely symbolic appeals, without expending the time or political capital necessary to undertake legislative battles that may be unwinnable" (62). Rodgers argued that executive orders simply represent Presidents' wishes and cannot be used as a powerful legal tool (15-16). Serving this matter is the EPA's report of 2004, which found that EPA has neither enforced the Executive Order 12898 nor incorporated environmental justice into its regular plans. EPA has not identified affected populations referred to in the Executive Order" (Carroll and Weber i).

In spite of all this criticism, the Executive Order marked a new development in the fight for environmental justice in the USA. Before the signing of this order, evidence proving "discriminatory intent" was required by courts to solve any environmental discrimination cases. This condition of intentional discrimination was removed with the signing of the Executive Order 12898. The petitioners of many cases relied on this order to make their case, as in *St. James Citizens v. Shintech* which was filled after the passing of the executive order. Shintech applied for a permission to hold a Polyvinyl Chloride Plant in Convent, Louisiana, a community whose 70 percent of its residents were African Americans and almost half of them were below the poverty line (Bullard, "Environmental Justice as a Working Model" 134).

The petitioners held that Executive Order 12898 necessitates the EPA to guarantee that "no segment of the population, regardless of race, color, national origin, or income, as a result of EPA's policies, programs, and activities, suffer disproportionately from adverse health or environmental effects, and that all people live in clean and sustainable communities"("The EPA's Environmental Justice Strategy"). Supporting their evidence with an environmental justice analysis which revealed that if the permit is granted, low-income and minority residents are more likely to suffer from pollution on the basis of race. The petitioners managed to make a compelling case and obliged Shintech to withdraw (Bullard, "Environmental Justice as a Working Model" 134-135).

2.3.2. The Environmental Protection Agency Measures

In 1990, EPA companied with academics and activists met with grassroots advocates including the Congressional Black Caucus members, to discuss the allegation that lower income groups and minorities were subject to higher environmental risk burden than other groups. As a result, William Reilly founded the Environmental Equity Workgroup to address

the claim of environmental discrimination (EPA, *1998 Environmental Justice Biennial Report* 1.1). In June 1992, the workgroup released its final report *Reducing Risks in all Communities* volume I and II which acknowledged that minorities and lower incomes residents disproportionally bore the burden of environmental hazards. The report provided a list of recommendation concerning the problem of environmental racism and consequently the Office for Environmental Equity was created on 6 November, 1992, which became known as the Office for Environmental Justice in 1994 (EPA, *1998 Environmental Justice Biennial Report* 1.1).

On 30 September 1993, the National Environmental Justice Advisory Council (NEJAC) was established. The Council granted instructions and recommendation to EPA about broad problems in relation with environmental justice. It held hearing for discussing the probability of incorporating environmental justice into EPA priorities and initiatives. NEJAC was working to integrate environmental justice concerns into Agency agenda. It sought to improve health and environmental conditions of disadvantaged communities and to address environmental justice by ensuring meaningful involvement in EPA decision-making, building capacity in disproportionately burdened communities, and promoting collaborative problem solving for issues involving environmental justice. Other objectives set by the council are to reinforce its alliance with other governmental agencies, regarding environmental justice issues and find alternative research and assessment strategies related to environmental justice. (EPA "National Environmental Justice")

The EPA benefited largely form recommendation and advice presented by the NEJAC. The Council contributed to the evolution of Environmental Justice within EPA. NEJAC's efforts managed to bring about some drastic changes in communities throughout the USA. Among the recommendations which proved to be of great influence on EPA are integrating environmental justice considerations into EPA' s Brownfield redevelopment initiatives, practicing meaning involvement in decision making processes particularly those underrepresented communities, improving and ameliorating EPA's regulation and policies to ensure a better health and environmental conditions for disadvantaged communities, and developing a more effective strategies of research and assessment risks (EPA, *National Environmental Justice Advisory Council 20-Year Retrospective Report* 6-8).

Adhering to the executive order on environmental justice, the US environmental Protection Agency forwarded the Environmental Justice strategy to incorporate environmental equity to the EPA' s agenda and regulations. The primary goal of EPA decision is to ensure that "No segment of the population, regardless of race, color, national origin, or income, as a result of EPA's policies, programs, and activities, suffers disproportionately from adverse human health or environmental effects, and all people live in clean, healthy, and sustainable communities"(EPA, *The EPA's Environmental Justice Strategy*).

The Executive Order 12898 focused mainly on the involvement of all citizens In the decisions making. Serving this idea, the EPA's strategy was based on three main principles; "Environmental justice begins and ends in our communities". Meaning environmental justice is linked directly and solely to communities and the EPA would focus their work on affected communities. Besides that the EPA will work to ensure disadvantaged communities have access to information concerning their environment, the decisions made and other activities. Lastly, the EPA will be the leading advocate of environmental justice among other federal bodies (EPA, *The EPA's Environmental Justice Strategy*).

In accordance to these principles, the EPA come up with an approach aimed at establishing common sense standards and procedures for conducting the agency's plans. This common sense initiative would bring together environmentalists, industry, states, tribes and others to set clearer, smarter and cheaper solutions to environmental issues (EPA, *The EPA's*

Environmental Justice Strategy).

2.3.3. Congressional Bills on Environmental Justice

The introduction of new legislation was another method used by the US government to limit environmental inequalities throughout the nation. There were a total of seven

congressional bills introduced to the US Congress between 1992 and 1993.

Table 2

Congressional Bills on Environmental Justice

YEAR	SPONSOR	TITLE	
6/3/92	Gore(Democrat - Tennessee)	S2806 Environmental Justice Act of 1992	
6/4/92	Lewis (Democrat - Georgia)	HR5326 Environmental Justice Act of 1992	
4/29/93	Collins, C(Democrat - Illinois)	HR1924 Environmental Equal Rights Act of 1993	
4/29/93	Collins, B (Democrat - Michigan)	HR1925 Env. Health Equity Information Act of 1993	
5/12/93	Lewis(Democrat- Georgia)	HR2105 EnvironmentalJustice Act of 1992	
6/24/93	Baucus (Democrat -Montana)	S1161 Environmental Justice Act of 1993	
2/9/94	Wellstone (Democrat-Minnesota)	S1841 Public Health Equity Act	

Source: Compilation of Different Sources by the Student.

Table 2 includes a list of congressional bills that were introduced to the Congress from 1992 to 1994 to deal with environmental racism. All the seven bills sought to eliminate environmental inequity in the USA and to restore the right of affected communities to live in a clean healthy environmental. Still none of the bills managed to proceed beyond introduction and referral into Congress.

In June 1992, the first Environmental Justice Act was introduced by Senator Albert Gore, Jr. and Representative John Lewis. The bill directed EPA's Administrator to publish a list of 100 counties the highly affected by toxic chemicals and to develop a system of user fees on chemical facilities to fund a grant program that would assist the disadvantaged population. It required the EPA's Administrator and Senator of Labor to conduct inspection of all toxic chemical facilities hosted in those counties every two years. The Secretary is requested to hand a report on the effects of toxic facilities on residents' health, if any significant impact is identified, the President is required to present redeemable solutions for the Congress. The bill was reintroduced by John Lewis on 12 May 1993, and by Senator Max Baucus on 24 June 1993 (Sec. 102,301,302,401,402).

On 29 April 1993, two Congressional Bills were forwarded, Environmental Equal Rights Act, and Health Equity Information. The first was introduced by Representative Candiss Collins that demanded the amendment of the Solid Waste Disposal Act by permitting disadvantaged people to submit petition to prevent the construction and the operation of waste facilities in their communities (Sec. 3). The second Act was introduced by Representative Barbara-Rose Collins. The bill called for the amendment of Comprehensive Environmental Response Compensation and Liability Act of 1980 by requiring the administrators of the Agency for Toxic Substances and Disease Registry to keep a record of demographic data of residents exposed to toxic substance contamination (Sec. 2).

On 9 February 1994, Senator Paul Wellstone introduced Public Health Equity Act. The bill requested the amendment of Public Health Service Act to prevent racial discrimination in programs and activities regarding exposure to hazardous materials (Sec. 2702).

2.4. Action Strategies for Pursuing Environmental Justice

In the USA, racial groups and low income communities had enough with being subjected to environmental hazards, thus they started their fight to regain environmental justice and to secure better quality life. In their quest for environmental equity, disadvantaged residents relied on a variety of strategies ranging from direct actions, social networking and legal actions.

2.4.1. Direct Actions

In the early phases of the environmental justice movement, residents relied on direct actions to fight the new pattern of racism known as environmental racism. Those residents organized protests, demonstrations and even marches complaining about the harm caused by the sited LULUs in their communities such as the protest of African American students of Texas Southern University against the garbage dump located in their neighborhood that caused the death of an eight-year old girl. Minorities also engaged in civil disobedience to stop the construction and operations of noxious facilities as what had happened in Warren County when residents tried to revoke the permit for constructing a PCB in their county.

Additionally, racial groups mobilized themselves by partaking in the political process, voicing their opinions and criticizing public policies and issues related to their community's wellbeing. They held house meeting where they discussed the issue of environmental disparate impact and their action plans. They even delivered public speeches to draw citizens attentions to the environmental harm and risks imposed on low income and minority communities, and to educate them about their natural and legal right as citizens to live in a clean and healthy environment under the protection of law.

2.4.2. Social Networking

Indeed, the direct actions were of great help. They raised public awareness by shedding light on the problems of environmental hazards experienced by racial groups. However, these early strategies were not effective enough to motivate the advancement of redeemable plan to the issues at hand, as they were isolated, weak and largely ignored by the environmentalists, policymakers and even the media. Consequently, the activists previously working individually joined their efforts to achieve their goals. Fragmented local groups formed several coalitions and organizations, such as West Harlem Environmental Action (WE ACT) in 1988, Indigenous Environmental Network (IEN), Southern Network for Environmental and Economic Justice (SNEEJ), and Chester Residents Concerned for Quality Life (CRCQL). These organizations worked to advance environmental justice in the USA at all levels; local, state and national ones. They provided the necessary technical assistance to advocates of environmental justice, through developing training programs which educated the residents on how to address the issue of ecological inequity, conducting environmental research to supply the activists with needed empirical evidence to support their claims (Pennington). Furthermore, they empowered local groups and affected communities to influence the policy on environmental justice issues. Also, these coalitions conveyed to the nations the magnitude of environmental justice issues.

2.4.3. Litigation as Legal Action

Another tactic used by the advocates for environmental justice is litigation. The primary goal of litigation is to "prevent or remedy, directly or indirectly, the disproportionate burdens of environmental harm borne by people of color" (Gunn 1271-1272). These litigations relied exclusively on Equal Protection Clause of the Fourteenth Amendment and Title VI of the Civil Rights Act of 1964.

The equal protection clause of the Fourteenth Amendment has been traditionally used to address racial discriminations cases in the USA. The clause prohibits discrimination on the basis of race as it clearly states that "No State shall deny to any person within its jurisdiction the equal protection of the laws" (US Const. Amend.XIV. sec 1). As such, it is not surprising that the environmental equity advocates used the clause as a tool to resurface their cases in courts and to combat environmental discrimination, since a major cause for these inequities is that racial groups are deprived of equal protection of the laws. Consequently, the first lawsuits of environmental justice were brought under the equal protection clause such as *Harrisburg Coalition against Ruining the Env't v. Volpe, Bean v. Southwestern Waste Management Corp.*, and *East Bibb Twiggs Neighborhood Ass'n v. Macon-Bibbs County Planning &Zoning Comm'n*.

However, the equal protection clause was not effective in stop environmental racism, because of the burden of proof imposed on plaintiffs that required the presentation of evidence to "intentional discrimination" as declared by the Supreme Court in *Washington v*.

Davis and *Village of Arlington Heights v. Metropolitan Housing Development Corporation* (*Arlington Heights v. Metropolitan Housing Development Corporation* 264-271). Simply put, the plaintiffs must prove that discriminatory purpose was a motivating factor in the taken decision. The burden of proof became an obstacle for environmental justice plaintiffs. All the litigations under the equal protection clause did not prevail in court because intentional discrimination evidences were not forwarded.

Facing all these difficulties, activists opted for another tool in court of law that is Title VI of Civil Rights Act of 1964. The merit of this act is that individuals can raise a case of environmental justice without being obliged to prove intentional discrimination. Mainly two provisions of Title VI were employed to address environmental justice issues; sections 601 and 603. The former requires that "no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance" ("Civil Right"8). The latter requires agencies granting public funds to issue regulations and laws to implement section 602. Yet the Supreme Court revealed that this section prohibits cases of intentional discriminations only. In 1996, the first environmental justice case under Title VI was filled; groups of residents in Chester, Pennsylvania, filed a complaint against the permit for siting a waste facility in predominately African American neighborhood. The Plaintiffs claims that the siting decision violated the stature under section 601 (*Chester Residents for Quality Living v. Seif 944 F. Supp. 413*). Nonetheless the lawsuit did not succeed as well, because intentional discrimination was not proved.

2.5. An Established Environmental Justice Framework

The head of the United States Environmental Protection Agency (EPA) stressed that "environmental protection should be applied fairly". However, it is not the case in the US where environmental protection under different policies, laws, and regulations is not guaranteed to all citizens. Consequently, some residents, neighborhoods, and communities became victims to pernicious health risks. The US governmental actions and practices seem to support a discriminatory system in which environmental protection is a privilege granted solely for white communities, rather than right secured for all individuals. The current environmental protection system reinforces rather than fights the exploitation of residents because of race, income and other socio-economic conditions. Under this biased system, unequal enforcement of law became institutionalized, human health is neglected for the sake of profit, vulnerable parties are targeted by placing the burden of proof on them rather than shifting it to the polluters, the exposure to toxic chemicals, dangerous substances and pesticides is legitimized, and clean efforts are not effective and often delayed and no strategies for pollution prevention have been introduced (Bullard, "Environment and Morality"6).

Despite all the defects of the environmental protection paradigm, the government agencies, policymakers and academia did not suggest any solution or initiative to improve it. The advocates of environmental justice were the ones who questioned the validity and effectiveness of the long standing program. In 1992, Bullard published his paper in which he proposed an environmental justice framework. The primary goals of the framework would be to prevent the occurrence of any health or ecological threats by eradicating the roots of environmental risks rather than eliminating those risks and to stop the unequal protection. It is highly inclusive of issues related to housing, healthcare, sanitation services and land use among other problems.

The framework is grounded on five main principles, first integrating the principle of the right of all citizens to be protected from any environmental harm regardless of their national origins, race and other demographic factors (Bullard, *Unequal Protection* 10). This can only be achieved through introducing Fair or Equal Environmental Protections Act similar to federal civil rights acts that advocated fairness in other areas including housing, education, employment such the Civil Right Act of 1964, the Voting Rights Act of 1965 and Fair housing Act of 1968 that was amended in 1988. The goal of the act would be to halt both intended and unintended discrimination provoked by decision of land use, policies or industrial activities.

As the ultimate goal of this frame work is to prevent harm before it occurs, a second principle serving this goal, would be the adoption of a model of prevention of harm as an action plan to protect public health (Bullard, *Unequal Protection*10). Simply put, the program would eliminate the causes of ecological risks before it impact any community, for instance in recent years, many farm workers got poisoned because of pesticides used, following this principle, the solutions to this problem is to treat pesticides in factories before use, rather than hospitalizing residents after being poisoned.

Third principle of the framework is about placing the burden of proof on industrial managements, polluters, legal and governmental bodies, and policymakers (Bullard, *Unequal Protection* 10). Currently, individuals namely, people of color and low income residents who are fighting polluters, must present an evidence of intent discrimination. Still, only few disadvantaged communities have resources to hire the experts (lawyers or doctors...) to present the proof of intentional discrimination and to win their battle against environmental discrimination. Accordingly, the framework would change this condition by requiring the managements seeking permits for constructing and operating LULUs to prove that the siting of those facilities will not cause any harm for all residents, and will not disproportionately impact racial groups.

Additionally, the framework would permit "disparate impact and statistical weight, as opposed to intern to infer discrimination" (Bullard, *Unequal Protection* 10). Under the current system, intentional discrimination prove must be handed to the court of law in order

to get the lawsuit through, yet it is very difficult if not impossible to prove purposeful discrimination in court of law, as exemplified in *Bean v. Southwestern Waste*, the first lawsuit against environmental discrimination under the Civil Rights act that took almost ten years for the plaintiffs to resurface in the courts. However, *Bean v. Southwestern Waste* among other environmental discrimination lawsuits using the Civil Rights Act failed because of the "intent" condition. Following the emergence of environmental discrimination argument such as *East Bibb Twiggs Neighborhood Assoc. v. Macon –Bibb County Planning & Zoning Commission (1989), Bordeaux Action Comm. v. Metro Cov't of Nashville (1990), R.I.S.E. v. Kay (1991), and El Pueblo para ElAire y Agua Limpio v. Chemical Waste Management, Inc. (1991). Nonetheless, all these charges were required to handle a test of purposeful discrimination.*

Finally, the framework would rely on targeting action and resources to deal with the existing disproportionate inequities (Bullard, *Unequal Protection*10). This strategy could be implemented through using all resources to treat the areas most effected with environmental and health problems. To locate those areas, extensive research must be conducted; ethical and political consideration must be taken into account instead of relying only on cause and effect relation or risk assessment. Since scientific proof may be misleading and hide the exploitative actions of industrial polluters in some communities (Shrader-Frechette 98).

All in all the framework proposed is considered as a perfect plan for combating environmental racism and condemning the responsible for pollution and other environmental and health problems instead of accusing the victims. Nevertheless, this framework did not go into effect completely as the Congress did not pass any act that secure citizens' right for a healthy environment since all the proposed bills failed. The government did not take any radical decisions to prevent harm before it occurs or to redress the existing inequities. Also the burden of proof was still placed on the affected communities instead of the polluters.

This analysis of the Environmental Justice Movement has demonstrated that advocates of environmental and affected communities suffered a great deal, worked hard to bring their issue into national spotlight. Although it is relatively new, the environmental justice movement gave voice and empowered disenfranchised communities especially racial groups and introduced a new comprehensive meaning to "environment" connecting both physical and cultural environment. This movement brought about some drastic improvements, changed the realities of many communities including the African American community.

Endnotes

 A set of local and state Statutes and Ordinances that enforced racial segregation.
 They were established between 1874 and 1975 to separate the white and black races in the American South. The Jim Crow laws were intended to create "separate but equal" treatment, but in reality they isolated African Americans and place them in an inferior position in comparison to their white counterparts (Hansan).

Chapter Three

Faces of Environmental Racism within the African American Community: Toxics, Disputes and Resolutions

In America, not all segments of society get to live in clean environment, as it is a privilege for whites only, non-whites are obliged to sustain the burden of all environmental problems of a whole nation. In order to earn this privilege, those minorities had to fight all sorts of environmental inequalities in their communities. One obvious example of a racial group that experienced environmental racism in the US is the African American community. Despite the fact that all racial groups are subject to environmental injustice, blacks are the most affected.

Several reasons clarify the selection of African Americans to become the focus of this Chapter. First, the initial attempt to address environmental racism can be traced to one of the black areas. Second, black residents filed the first Lawsuit of environmental discrimination in the US history. Third, the worst cases of environmental racism were experienced by African Americans. Fourth, it was an African American protest that triggered the national Environmental Justice Movement. There are several examples that can be presented to prove that environmental racism is real within African American community, yet only three cases were selected for this chapter.

3.1. Houston, Texas

The first attempt to address environmental discrimination can be trace to Houston, Texas, where African Americans sustained the burden of environmental hazards for several decades. By the early 1980's Houston emerged as the fourth largest city in the United States with a population of 1.6 million residents over the area of 585 Square miles ("Houston, Texas Population 2019"). Houston is the only city in the United States without a formal zoning code. This fact explains the irrational land use planning of the city. Instead deed restrictions were used to organize land-use within the City subdivisions; those renewable deed restrictions permitted residents to control which facilities and land-use to be located near their households. However, not all residents were able to enforce their deed restrictions, especially those lower income and minority communities who neither had the money nor the energy needed to do so (Logan and Molotch 158).Eventually the lack of zoning and effective landuse regulations or restrictions put racial groups and poor residents in Houston to jeopardy; their neighborhoods became the waste dump of the city and the State of Texas.

3.1.1. Black Houston: The Waste Land

African American proportion made up only 27 percent of the overall population, yet their neighborhoods became the dumping ground of Houston's municipal garbage (Bullard and Wright, "Quest for Environmental Equity" 306). Blacks were more likely to reside an area hosting waste facilities than their counterparts the whites in Houston. For more than five decades, a pattern of clustering waste disposal facilities existed in black Houston. Since 1920, black neighborhoods became the home for waste disposal facilities; whether privately owned or city owned facilities, permitted by the Texas Department of Health or not permitted incinerators, landfills and mini incinerations, 80 percent were located in African American Communities (Bullard "Solid Waste Sites").

Back in 1920, Houston owned five trash incinerators; four out of these incinerators were located in black neighborhoods (Fourth Ward, West End, Kashmere Gardens, Sunny Side) and only one facility was located in the Hispanic area. The same pattern was followed to site Garbage landfills; all landfills operating from 1920 to 1970 in Houston were installed in African American subdivisions (see table3); one in Fourth Ward, two in Sunny Side, one in Trinity Gardens and another in Acres Homes (277- 279).

Table 3

Houston-owned Incinerators and Landfills Operating from 1920 to 1970.

SITES	NEIGHBORHOOD	ETHNICITY
Incinerators		
FourthWard(Gillette and Hobson)	Fourth Ward	Black
Patterson Street(2500 Patterson and Katy Freeway)	West End	Black
Kelly Street (North Loop and Eastex Gardens Freeway)	Kashmere Gardens	Black
Holmes Road (Bellfort and SouthFreeway)	Sunnyside	Black
Velasco (Velasco and Navigation)	Second Ward	Hispanic
Landfills		
Fourth Ward (Gillette and Allen Parkway)	Fourth Ward	Black
Sunnyside (3500Bellfort)	Sunnyside	Black
Reed Road (2300Reed Road and Kish)	Sunnyside	Black
Kirkpatrick (Kirkpatrick and HB & T Railroad)	Trinity Gardens	Black
West Donnovan (West Donnovan and Ella Boulevard)	Acres Homes	Black

Source: Bullard, Robert D."Solid Waste Sites and the Black Houston Community." Sociological

Inquiry 53 (1983): 273-288. Wiley Online Library. Web. 25 March 2019.

Table 3 includes a list of solid waste facilities operating from 1920 to 1970. The list is composed of eleven facilities, five large garbage incinerators and six municipal waste landfills. In examining the distribution of these LULUs, the ethnicity of the host neighborhood was taken into consideration.

Fourth Ward that was selected for hosting noxious facilities is the oldest black neighborhood. It was labeled "Freedmen's Town" referring to the slaves who moved in 1860. In the mid 1920's Fourth Ward became the center of black culture in the city, the majority of black businesses and African American professionals were in this territory (Wintz). Patterson Street Incinerator was also situated in a predominately black neighborhood West End (census tract 514). According to the 1970 census African Americans presented 57 percent of the overall population of West End subdivision. In 1970, African Americans made up 90 percent of Kashmere Gardens (census tract 207) population, the host of Kelly Street Incinerator. Another black site Sunnyside (census tract 329) which is located southeast Houston, was approximately 99 percent black. Acres Homes (census tract 525) was previously the largest unincorporated African American community in the Southern United States. It is located northwest Houston; covering 23 km², its estimated population in 1970 was 3898 residents. The black residents (2948) represented 75.6 percent of the whole population (US Bureau of the Census P_7, P_11, P_16, P_17). By 1970 all facilities were shut down. Incinerators were closed because of the high operating budgets and the pollution and environmental issues caused by those LULUs (Bullard, "Solid Waste Sites").

In 1972 in an attempt to replace the closed incinerators, the city of Houston sealed an agreement with Houston Natural Gas Company to operate mini non-polluting incinerators in the city. The project involved the construction of three mini incinerators. Two of the sites were installed in black community areas; Kashmere Gardens which previously hosted Kelly Street Incinerator and Carverdale (Tract 528) that was 63 percent black in 1970. The third mini incinerator was installed in a white area. The facilities were closed in a short notice, since they did not meet the criteria of the Houston Air Quality Control Board (277-278).

Toxic assaults in black Houston continued. Between 1970 and 1978 Texas Department of Health (TDH) issued permits for twenty-one solid waste sites, eleven were installed in black areas (Bullard, "Solid Waste Sites" 281). Simultaneously, the TDH granted permit for operating eight municipal garbage landfills in Houston (see table 4), seven of which were set in predominately black neighborhoods: Two in Riceville, two in Almeda Plaza, one in Settegast, one in Acres Homes, and another one in Northwood Manor. The last site was set in the white area labeled Chatwood (282-283).

Bellaire and West University Place, white cities had sites for disposing the garbage in Riceville, an all-black neighborhood. The rest of municipal landfills are owned by a single company which later was bought by Browning-Ferris industries. In 1968, American Refuse Systems Inc. a waste disposal company reached an agreement with the city of Houston to build and operate dump facilities. From 1969 to 1972, American Refuse Systems had five operating landfills. Later Browning-Ferris Industries purchased the company and became the owner of six landfills in Houston (see table 4), five of which were operating in African American areas including Almeda Plaza, Settegast, Northwood Manor, and Acres Homes which was the largest unincorporated African American Community in the south with 75,6 percent of black in 1970 (Bullard, "Solid Waste Sites" 283).

Table 4

Municipal Landfill Sites in Houston, Texas, 1970-1978.

SITE	YEAR	HOSTNEIGHBORHOOD
City of Bellaire ' (9792 Ruffino) ^a		Riceville (Black)
West University Place (9610 Ruffino) ^a		Riceville (Black
American Refuse (1140 Holmes Road) ^{a b}		Almeda Plaza (Black)
InternationalDisposal (2100 Nieman Lane) ^{a b}	1970	Acres Homes (Black)
Browning-Ferris Industries (11013Beaumont Highway) ^{a b}		Chatwood (nonblack)
Tex-Haul, Inc. (7200 Tidwell) ^{a b}		Settegast (Black)
Browning Ferris Industries (1140 Holmes Road) a b		Almeda Plaza (Black)
Whispering Pines(11800E. Houston Dyersdale Road) ^{a b}		NorthwoodManor(Black)

Source: Bullard, Robert D."Solid Waste Sites and the Black Houston Community." *Sociological Inquiry* 53 (1983): 273-288. Wiley Online Library. Web. 25 March 2019.

^a The above landfill sites were permitted by the Texas Department of Health between 1970 and 1978. ^bThe above landfill sites are owned by Browning Ferris Industries or its subsidiaries.

Table 4 displays the municipal landfills that were permitted by the DHA between1970 and 1978. The facilities were classified according to the ethnicity of the host neighborhood. The examination of the list reveals that all landfills were installed in black territories.

The city of Houston has a large number of neighborhoods, yet for over fifty years only nine black neighborhoods shouldered the burden for waste disposal facilities. Environmental racism does exist in Houston or else how one can explain the proliferation of LULUs in black territories precisely. The fact that a single company, Browning-Ferries Industries, had not one but six large municipal waste landfills and that was not a coincidence. Another proof that blacks suffered from environmental injustice is that even all white cities like West University Place and Bellaire targeted the poor black communities to dump their trash instead of selecting other white areas.

3.1.2. Black Houston: A Quest of Environmental Justice

Prior to 1960, blacks have challenged the attempts to site waste facilities in their neighborhood and mobilized to shut down the already operating LULUs. On May 16 1967, African Americans picketed Sunnyside's Holmes Road garbage dump that caused the drowning of an eight-year old girl. This incident triggered the Texas Southern University riots, and soon the protest escalated into a dangerous confrontation between protesters and the police, which ended up by the death of a police officer and the arrest of more than 480 protesters (Braimah). This event was the first attempt to stop environmental racism.

Four years later, blacks picked up the fight. In the early 1970' s, African American residents held demonstrations and pressured the city officials to shut down the Trinity Gardens' trash dump. The struggle continued. By the late 1970's Browning-Ferris Industries applied for a permit to build the Whispering Pines Landfill in Northwood Manor neighborhood, 82 percent of the neighborhood population was black. The proposed landfill was not only near residents households, but also it was within 1400 feet from Smiley High School. The school was ill-equipped and unfortunately an African American school (*Bean v. Southwestern Waste Management Corp.*). This decision angered the residents who would engage in a protest complaining about the plan of building the landfill in their subdivision. Later, residents established Northeast Community Action Group (NECAG) to challenge Browning Ferris Industries (Bullard, "Dumping on Houston's Black Neighborhoods" 218-219).

NECAG resorted to legal action on 26 October1979; the group filed a lawsuit to reverse the construction of the landfill in their community. The plaintiffs accused the TDH and the Browning-Ferris Industries with racial discrimination for choosing to host the Whispering Pines Landfill in predominately black site, also claiming that the decision violated Civil Action for Deprivation of Rights (42 U.S.C s1983). This was the first case o racial discrimination in the USA history that was brought under Civil Rights laws. It was not until 1984 that the case went to trial, the federal court district judge McDonald overrode the plaintiffs' claims and denied the preliminary injunction. In her written order the judge explained that the plaintiffs succeeded in showing that the siting decision was both "unfortunate and insensitive", yet they failed in proving intentional discrimination (*Bean v. Southwestern Waste Management Corp.*). In 1984, the case was referred to the federal court judge John Singleton. During the hearings, the judge repeatedly addressed blacks using offensive words such "nigras" and "nigra areas". The judge pronounced decision was against the plaintiffs, validating the construction permit (Bullard and Wright, *The Wrong Complexion for Protection* 64).

Although the court's final decision was against Northwood Manor. It brought about some redeemable solutions to environmental problems. In 1980, the city council passed a resolution forbidding city-owned trucks from disposing in the Whispering Pines landfill. The following year, the council enacted a resolution to limit the establishment of waste disposal facilities within areas hosting other public service facilities. Additionally, TDH amended its current standards and required applicants for landfills permits to hand comprehensive land use and account of the economics and demographics of the selected location (Bullard, "Dumping on Houston's Black Neighborhood" 221).

Through this lawsuit black residents in Houston made it clear that they would not tolerate any further advancement to site LULUs in their territory. The efforts of African Americans in Houston did only serve them. It also prompted other blacks and minorities in the US to take a stand and fight environmental injustice and paved the way for a national environmental justice movement.

3.2. Chester, Pennsylvania

One of the worst cases of environmental racism in the USA is that one of Chester, where poor African American citizens were exposed to disproportionate share of environmental hazards.

Unsatisfied with this condition, Chester residents got involved in grassroots activism to fight environmental racism; they mobilized themselves, established social networks and began their direct actions to achieve environmental justice.

Chester, Pennsylvania, is an urban city located in Delaware County, about fifteen miles southwest of Philadelphia. According to the United States Census of 1990, the city population accounts for 41.856 residents (USEPA, *Environmental Risk Study* 1). The city is exclusively black, 65 percent of its residents are African Americans, within predominately white Delaware County with only 6.2 percent African Americans (*Chester Residents v. SEIF 132F*). The estimated poverty rate in Chester is 25 percent, three times the national average, and the average family income is 45 percent lower than in Delaware County (Kurts). Unemployment, crime and health problems rates also are higher in this city; mortality rate is 40 percent higher than in other areas within Delaware, and child mortality rate is the highest in Pennsylvania (USEPA, *Environmental Risk Study*; Staples).

Chester is haven of LULUs oil refineries, plants, chemical factories...etc., which made living in this area close to impossible, as expressed by a male resident of Chester "this used to be a really nice place to live, but now, it is like living next to a nuclear plant"(qtd. in Janofsky). Residents were obliged to remain in their houses because of the dumping tracks that made the air thick with acid smells and smoke ("Suit Says Racial Bias Led to Clustering of Solid-Waste Sites"). The constant stream of those tracks did not only irritate Chester's residents, it also fractured houses near the main roads and caused the property values to depreciate (Janofsky).

3.2.1. Chester as Waste Magnet

Before being transformed into a waste magnet the city of Chester was once an industrial center. Chester's location along Delaware River made it a perfect spot for manufacturing attracting William Penn who landed on its shore in 1682. This was a historical turning point that marked the beginning of a development age in Chester. From the early 1700 to 1940, the mill town of Chester managed to become a thriving manufacturing center with varied industry. This economic boom brought many southern blacks and immigrants from Poland and Ukraine to Chester in search for better jobs and education (Kelly). However, the booming age did not last. After the Second World War things changed in Chester, increasing competitions from abroad and the advancement of new technologies paralyzed manufacturing. Business owners seeking to maximize their gains move out from Chester and expanded their work outside Delaware County; this led to the collapse of Chester's economy ("History of Economic Development in Chester"). Between 1950 and 1980, 32 percent of jobs were lost, simultaneously the African American population in the territory increased massively from merely 20 percent to 65 percent (Kelly).

Shortly, thereafter, the massive economic depression, social decline followed up. After having a good education system, the local Schools ranked as one of the worst in the whole state. Crime rates and unemployment increased as well (Hinds), living in this miserable economic and social conditions forced the city's residents to approve any solutions as long as jobs were going to be available, the local government and residents encouraged everything and anything to come to town to provide jobs including LULUs ("Laid to Waste"). Eventually all these vulnerabilities transformed the territory into a waste magnet.

Starting in the1980s waste treatment facilities proliferated in Chester; between 1986 and 1996, Pennsylvania Department of Environmental Protection (DEP) issued seven permits for operating commercial waste facilities in Delaware, five of which were located in the predominately black city (Staples). The history of Chester as a wasteland started by the investment of Russell, Rea and Zappala (RR&Z) the Pittsburgh Company and Westinghouse Corporation in the area; back to 1985, RR&Z and Westinghouse formed Chester Solid Waste Associates Company to buy out a land which was used as a site for three toxic facilities. Later RR&Z spoke with officials of Delaware County about the possibility of hosting an incinerator in the land (Russell).

Meanwhile, in 1987, a trash transfer station owned by Lease Corporation of America began operating; the station brought numerous tracks loaded with trash to Chester. Next, Abbonizio Recycling Corporation a demolition debris recycling company come along and produced more dust in the area. In 1988, despite the opposition of residents and without their input, the DEP granted permit for building and operating Westinghouse Resource Recovery Facility (Westinghouse incinerator). Westinghouse was the 7th largest incinerator in the USA; it receives trash from all over the east coast including Delaware, New York, New Jersey and Ohio. Its capacity is 2688tons of trash every day (Murray; Russell.)

In addition to the newly operating facilities, the city already hosted older ones, namely: Witco Chemicals, Scott Paper, British Petroleum, Sunoco Oil and Delaware County Regional Water Quality Control Authority (DELCORA) wastewater treatment facility. The latter is major toxic facility in. Every day, it treats 36 million gallons of waste water and receives 90 percent of Delaware sewage and wastewater and industries wastewater. It did not stop there; the DEP issued two additional operating permits, for Thermal Pure Systems, an infectious waste treatment facility which is permitted to process 288tons of medical waste per day and Soil Remediation Systems, a contaminated soil-burning facility that would burn about 900tons of petroleum contaminated soil (Murray).

The environmental studies Capstone conducted an inquiry about environmental justice in Delaware, which revealed that out of fifteen polluters in the whole county, five are located in Chester: Kimberly-Clark PA LLC, Norquay Technology, Inc, Degussa Corporation Community Light and Sound Crown Foundry Company. Those facilities contaminated the air with tons of acid rains including Hydrochloric, Sulfuric acid Copper, sulfuric acid styrene, toluene, lead and nickel. The released substances are highly toxic and cause nervous disorders, respiratory and gastrointestinal problems and liver diseases (Environmental Studies Capstone 38-41).

The continuous flow of LULUs to the City caused many environmental and health problems. In 1994 the EPA released a report of cumulative risk study on Chester. It showed that the estimated blood lead levels in children was unreasonably high, with more than half of children's blood samples exceeding the recommended maximum level (10 ugl /dl) set by the center for disease control. Pollution sources surrounding the city and the released air emissions increased cancer and non-cancer risks (USEPA, *Environmental Risk Study* 2).

3.2.2. Making the Case for Environmental Racism

By the early 1990s and in response to the clustering of waste facilities in their community, blacks mobilized to stop noxious facilities polluting their neighborhood. In October 1992, residents attending public meeting along with DEP and EPA officials and private industry complained about the Westinghouse incinerator odor, noise and trash. The government and industry delegates held that the government would not harm their citizens and that the facility met all the federal and state standards. Zulene Mayfield, one of the residents unconvinced by all the claims of officials, replied "I can't understand why you bright, college-educated people can't come down here and tell a better lie than what you're telling. [W]e are people from probably the worst school district in the state and we can see [and] understand these lies" (qtd. in Cole and Foster 40).

After the public meeting, Zulene Mayfield and other residents organized weekly meetings and soon Chester Residents Concerned for Quality Living, CRCQL was formed. The group initiated their direct actions by holding one-on-one meeting with industry and government officials. All the meetings were doomed to failure, as no resolutions or answers were presented despite the constant complaining of the residents ("Chester Residents' Blockade Westinghouse Incinerator"). The turnout of the meetings and the attitude of the delegates made it clear that decision makers did not care about residents' concerns let alone resolving them and worse, it seemed as if industry and government worked to hide the truth about the serious issues threatening the environment and health. Probably the government's position was the motive that prompted the CRCQL to take different actions to stop environmental injustice.

After three months of meetings, on 22 December 1992, residents held their first protest, from the early morning residents lined up in the street and prevented the trash trucks from reaching Westinghouse incinerator. The citizens managed to stop trash loading for two hours, within the next hour Westinghouse official arrived to Chester and met the protesters. After hearing their complaints, the official agreed to change the track of trash trucks ("Chester residents' blockade Westinghouse incinerator"). Although the new road was only one block away (Mendel-Reyes 157), this was the first victory ever.

Chester's issues would continue. Despite residents' disagreement, actions and protests, the DEP granted permit to Midlantic Biowaste Systems, Inc. to build and operate a contaminating waste sterilization plant adjoining the Westinghouse incinerator. The CRCQL sent a total of 500 signatures against the permitting decision, to the DEP and the city council. The company in an attempt to trick the residents and get their permit through substituted the permit application under the name of Midlantic Biowaste Systems to Thermal Pure (Russell). The DEP had a hand in transforming Houston to a waste land. It ignored residents' complaints and disagreement protests and kept issuing operating permit for hazardous waste facilities in the area. Furthermore, instead of enforcing laws to regulate waste industries actions and protect residents' right for clean environment, the DEP allied with waste industries against residents.

The case took another turn when the residents discovered the conspiracy of the city council members who forwarded a letter requesting the DEP to hasten the permitting of the facility. The DEP reissued the permit without residents' consent (Russell). Bringing the case to court was the next step for CRCQL. In August 1993, Jerome Balter, a lawyer from Philadelphia collaborating with the CRCQL, appealed the permit issued for Thermal Pure and claimed that the permit and DEP violated the Disposal Act of Controlling waste in Pennsylvania. In February 1994, Pennsylvania Environmental Hearing Board rejected the allegations of CRCQL and validated the DEP's permit. Refusing the board's decision, the CRCQL took the case to the Pennsylvania Commonwealth Court. The court approved the claims and invalidated the permit. However, the CRCQL victory did not last long as the Supreme Court reversed the Commonwealth court's decision using King's Bench power 3 and revalidated the permit ("Clustering of Waste Facilities in Chester"; Cole and Foster 45; Russell; Sicotte 134).

Employing the King Bench power in this case was a controversial maneuver, since this power can be used only in extraordinary circumstances affecting public wellbeing. However the ruling of the Commonwealth court did not generate any harm to public wellbeing. What makes this action even more suspicious in that the chief of justice in the Supreme Court back then was Stephen Zappala, the brother of one of the partners of RR&Z, a major owner of waste facilities in the region. Thus, it is not mere coincidence.

Despite their defeat, the residents' group succeeded in stopping the establishment of Soil Remediation System (SRS), by convincing the city council to amend the zoning code. In 1994, the Council passed a resolution obliging waste facility applying for permits to prove that the new facility would not add more pollution to the area. SRS failed to meet the ordinance burden of proof and the city did not hand its license; thus the state did not issue the permit of the facility (Sicotte 134). The zoning ordinance paid off once again in preventing the construction and the operating of Ogborne Demolition Waste transfer station, on 4 June 1998, the DEP withdraw from granting the permit to Ogborne Waste Removal Inc. because the company could not provide adequate information on the new facility ("Ogborne Construction/Demolition Waste Transfer Station Defeated").

CRCQL could not fight environmental racism alone, especially after the withdrawal of many Ukrainian members. This predominately black group position was vulnerable; its members were repeatedly harassed and threatened, as Zulene Mayfield mentioned that their office was vandalized twice, in one of the time the graffiti KKK was scrawled on their desk and wall ("Laid to Waste"). After all these incidents, the group started to question their ability and effectiveness in facing environmental racism; thus they decided to broaden their appeal beyond African Americans. CRCQL succeeded in admitting Swarthhouse University students to their side. In February 1996 the University held a conference discussing Chester's case of environmental racism and on a short notice the Campus Coalition Concerning Chester (C4) was formed. The C4 assisted the CRCQL in the fight against environmental injustice. It raised the young population's awareness and educated them. It also participated in many protests with the CRCQL against RR&Z at the firm's Pittsburgh offices, the DEP on Earth Day and others. The C4 provided technical support and empirical evidence that bolstered Residents' allegations of Environmental damage (Ewall).

On 22 November1996, CRCQL, C4 and environmental activists organized a protest next to Delaware offices of Solid Waste Authority (DSWA) complaining about the trash sent to Westinghouse incinerator. This small protest with only dozens of protesters in a virtually abandoned place attracted the DSWA's attention. Following this event, meetings between the DSWA, CRCQL and Westinghouse were held and in January the DSWA voted to stop sending waste to Chester ("Delaware Solid Waste Authority to Ship").Chester's victory continued in 1997.The Cherokee environmental group applied for a permit to build a soil plant in Chester, but the DEP refused their application as residents organized a public hearing to protest the plant ("Cherokee Biotechnology Plant Defeated"; Sicotte 134). Chester was in an ongoing struggle to abate pollution and environmental injustice. In December 1997 CRCQL filed a lawsuit against the county's sewage treatment facility DELCORA claiming that the facility violated the established clean air act. After a long period of negotiations among the CRCQL, EPA, DEP and DELCORA, a final settlement was reached; DELCORA agreed to pay \$320.000 penalty; 120.000 for DEP and EPA, the other 200.000 to fund children's lead poisoning prevention program that the CRCQL would take charge of it ("Chester Residents Win Case against DELCORA").

The CRCQL lodged a complaint against the DEP for violating the Civil Rights Act of 1964 by granting permits for five facilities in Chester and only two facilities in the rest of Delaware (Janofsky). This was the first lawsuit brought under title VI of the Civil Rights Act. Dalzell Stewart, the district court judge taking the case, discarded the suit saying there is proof of intentional discrimination. The CRCQL appealed the rule to the 3rd Circuit Court; on 30 December1997 the federal court ruled in favor of CRCQL granting the residents the right of action under Title VI of the civil rights act and canceled the Burden of proof for this case ("Federal Court Gives Green Light to Environmental Racism"). By doing so the Chester residents won the right to proceed in their lawsuit to prove that the DEP is practicing environmental racism in Chester. Later the case was appealed to the Supreme Court which in august 1998 declared the case moot and vacated the federal court decision ("Chester Lawsuit Declared Moot by US Supreme Court").

Although they lost the lawsuit, CRCQL's move had an impact on the decision of the DEP; in 1999 the Kimberly-Clark paper- product manufacturer located on the western Front next to an incinerator in Chester requested a permit for burning cars and trucks' tire to fuel the factory. Yet in December 2002, the DEP returned down Kimberly-Clark permit application ("DEP Denies Tire-burning Permit").

The struggle for environmental justice kept on going on. Fighting environmental

racism would become a daily reality for Chester residents. Things that can be understood from those events and encounters is that it was straightly a political rather than a legal matter. Also if it were not for residents' persistence and resistance, African Americans would have remained subject to environmental racism.

3.3. Emelle, Sumter County, Alabama

Sumter County is a rural and poor area located in the core of the Black Belt, in the western part of Alabama State. The county encompasses 907 square miles bordering Mississippi to the west and Tombigbee River to the east (Siebenthaler). The county comprises eleven communities with estimated population 16.908 in 1980. Blacks made up 69 percent of Sumter. About 33 percent of Sumter's population lived below poverty line with blacks presenting 93 percent of poor residents who earned only \$ 11.015 as median family income (USGAO 1).

Cotton production and farming under the sharecropping and the tenant farming systems was thriving in Sumter. However, by the 20th century, the region agriculture receded. With the demise of economic base, many jobs were lost, unemployment rate escalated up to 20 percent and employment opportunities were limited. This economic decay resulted in a massive exodus of residents from Sumter County to other areas. Since 1940 the population of Sumter had started declining slowly to reach less than 17000 residents in 1980 (more than 40percent decline), blacks comprised 70 percent of the current population. Most of the population is concentrated in the southern part of the county; in the county seat Livingston (3500) and the county's trade center York (3100) (Faupel, Bailey and Griffin 299-300).

In the 1970s the county's economy began to thrive again as industries moved into the region. Despite its rural nature, Sumter County was not an isolated area; it is served by interstate Highway 59, an active railroad, also the water way of Tennessee-Tombigbee; these transportation lines and cheap labor attracted manufacturers to the region. However, this did not last much, a decade later those industries moved out (Bailey, Faupel and Holland 23).

These economic vicissitudes affected negatively residents' income and increased poverty rates. By 1980s, unemployment rate estimated ranged between 12 percent and 20 percent and about 30 percent of the whole population were below poverty line (Faupel, Bailey, and Griffin 300). In 1990 the county's per capita income ranked near the bottom 61 out of 67 counties with 9.800 compared to 13.600 in Alabama and approximately 17.600 in the US (Alley, Faupel and Bailey 411)

3.3.1. Emelle, the Cadillac of Waste

In 1974, the EPA identified several regions as a possible site for large size processing facility. The EPA based its selection on the physical characteristics of the region, the availability of transportation, also taking into consideration the region residents and ecology. Sumter County was selected for its geologic formation known as Selma chalk (USEPA, *Report to Congress*72). This formation is 700feet thick and made up of impermeable marine sedimentary materials (Bailey, Faupel and Holland 24). Motivated by the EPA announcement, the low economic conditions and cheap land (land prices dropped by 15-20 percent since 1987) polluting industries arrived to Sumter County; in 1977 the small regional company Resource Industries Inc. bought 300acres of land in Sumter County. The political ties of the company with the state officials secured the needed permit for purchasing the land from the Health Department and opening of a landfill. In 1987 the land along with the permit were sold to Chemical Waste Management Inc (CWM) which soon enlarged its operation to own 2700 acres in Sumter, but only 350 acres were hosted (Alley, Faupel and Bailey 412).

CWM, a subsidiary of waste management Inc, is the largest company in hazardous waste industry in the United States that owns four out of six large landfills in the whole country. CWM is one of the eight companies that share the lucrative hazardous- waste disposal business along with Browning Ferries Industries, International Technology, Rollins Environmental Services, Environmental Systems Co, Inc and American Ecology. These firms garner almost one half of Toxic waste industry's revenues (Goldman 3-4); Wall Street report revealed that CWM revenues account for 40 percent of the total industry revenues (Bailey, Faupel and Gundlach112).

CWM established commercial hazardous waste treatment storage and disposal facility (Chemwaste) in the western part of Alabama on state highway 17, in Sumter County near Emelle (see fig1), a small rural black community. Emelle's population accounts for 626 residents in 1980: 90 percent were black, 42 percent of the total population lived in poverty and all black residents were below poverty level. Even the neighboring communities to the landfills site (with 4miles) were also predominately black areas: Noxubee River (87 percent) and Kemper County's area was 69 percent black, in those communities 93 percent of the black population was below poverty level (USGAO 1).

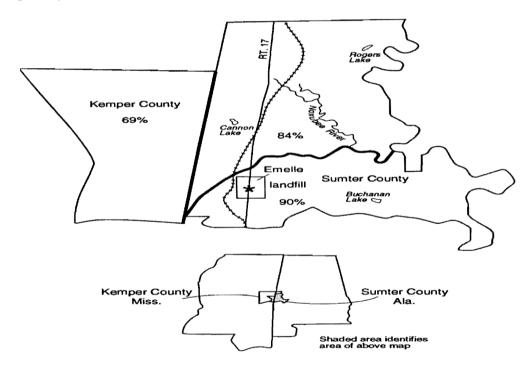


Fig.1.Chemical Waste Management, Sumter County, Alabama and racial composition of the neighboring areas from United State, Government Accounting Office. *Siting of Hazardous Waste Landfills and their Correlation with Racial and Economic Status of Surrounding Communities.*

All chemical waste management Inc. transactions were legal; the company had the EPA approval for PCB disposal and had the RCRA interim statutes which authorize it to operate the landfill (USGAO 1). However, the landfill in Emelle was established without residents' consent leaving no chance for them to protest the siting decision. The landfill was technically forced to the area, since public hearings were not required to be held, and the Solid Waste Act of 1969 did not oblige investors to notify residents about the construction (Alley, Faupel and Bailey 412). During this period in Sumter County, what facilitated CMW operations was that whites monopolized the political power in the county, not a single black resident held office or was a member in the governing bodies, including Sumter County's Commission, the State Legislator and the industrial development board. Thus, black residents did not possess the political power to protest the decision of CMW and impose their demands on governmental officials. It was not until 1982 that white political control ended and black residents became a district judge. By 1986 blacks held the majority seats on the county Commission (Bailey, Faupel and Gundlach110-111).

Only few residents knew that their community would be the host of the largest landfill in the US. In the early phases of its constructions rumors spread about a new industry coming to Emelle and when *Sumter County Record*, a local newspaper wrote that the new industry would make use of Selma Chalk. Many citizens misinterpreted the news thinking that a brick factory, limes tone quarry, or cement manufacturer was going to be built in the territory (USEPA, *Environmental Protection Agency Cabinet Elevation*145). Even after they discovered that the new building was a waste facility they thought it was a solid waste landfill. Responding to residents' rumors, Resource Industries held a meeting for Emelle residents, yet only few attended the meeting and little was done to instruct the public about the facility. Later Sumter's officials alleged that the local newspaper notified the public before the starting of the construction but no news was reported on the facility until 1981 (Faupel, Bailey and Griffin 308).

Even if there were no regulations obliging the CWM to notify the public, the company should not be this discreet about building the landfill. It is also the local government duty to inform the residents about any industries or constructions taking place in their community as they may affect them and pose large risks to their health and environment.

The arrival of chemical waste management Inc. boosted local business; the company became the largest employer in the county, employing 400 residents with a payroll of \$10 million. Furthermore, since it began operating, CWM paid user-fee on every ton of waste buried in Emelle (\$5 per ton) by 1995 the county gained\$20million. The money was invested to improve public services (fig 2).

Fig.2. Where the Chemical Waste Management, Inc., User Fee Dollar Goes from Bailey
Conner, Charles E. Faupel and Susan F. Holland (1992) "Hazardous Wastes and Differing
Perceptions of Risk in Sumter County, Alabama."Society & *Natural Resources* 5.1 (1992):
21-36.

The figure shows that CWM user fees are distributed among different organized entities in Sumter County. City of York, Livingston, Sumter County Water Authority, board of education and General fund receive a large share of the fees. While the rest of the money is divided among other groups including: Rescue Squad, West Alabama Mental Health... etc. Surprisingly, the host of the landfill Emelle town receives only a small share of the fees (2percent).

3.3.2. Opposition to Chemical Waste Management Landfill

Shortly after Chemwaste began operating in 1978, Minority People's Council, a black organization led by a local activist, organized a walk off where a group of workers complained about the unhealthy and dangerous working conditions of the landfill. Following this incident, in 1979, residents came together and formed the Sumter Countians Organized for the Protection of the Environment (SCOPE). It was exclusively white organized headed by a tenured professor at the University of Livingston. SCOPE was a rather moderate organization that called for rigorous monitoring of Chemwaste's operation, residents' right to reliable data on those operations and direct accountability of CWM to the public (Faupel, Bailey and Griffin 301-302). SCOPE organized numerous public forums, yet those meeting worked quite the opposite as the group started supporting the argument legitimizing the necessity of Chemwaste (Davidson).

Disappointed with SCOPE position, in 1983 some residents established Alabamians for Clean Environment (ACE). Similar to its precedent, ACE was a white organization formed out of 300 members and a core leadership group with less than 10 members. But unlike SCOPE, ACE opted for a radical rather than moderate approach; it sought to shut down the facility (Faupel, Bailey and Griffin 302). ACE's goal was unrealistic one and achieving it was nearly impossible given the economic dependency of Sumter County on the CWM; closing Chemwaste meant 400 unemployed residents and no taxes money to invest. Hence the group was not taken seriously, residents, CWM and even county officials underestimated ACE; one of the residents described it as "a little local group...as far as their having any effect, it's about like a mouse trying to stomp an elephant" (qtd. in Faupel, Bailey and Griffin 302).

Despite harsh criticism and neglect of residents, CWM and county officials, ACE vested all its efforts to achieve its goal and close the landfill. In the early phases of their struggle, ACE was guided by Protect the Environment of Noxubee County (PEON), a grassroots group that supplied ACE with information about CWM previous operations in other States. Later the ACE participated in public meetings and forums in which they voiced their opposing opinion and open a questioning of CWM's effects on Emelle's residents (Alley, Faupel, and Bailey 413). Thus, in the early phases this group focused its attention to expose CWM as a company that strives for profit at the expense of residents' health.

ACE concerns were logical, Chemwaste was a potential threat to Emelle wellbeing; the landfill in Emelle treats some of the most toxic substances in the USA, including heavy metals, PBC and industrial solvents. Chemwaste receives wastes from forty eight States and from all superfund cleanup sites, in 1986 the landfill treated about one-fourth of the total hazardous waste of the nation (Dunlap and Mertig 45). In 1989 more than 700.000 tons were buried in Emelle (Moore). This large amount of waste arriving to Chemwaste will eventually cause serious health and environmental problems. As Wendell Paris, a black civil rights activist explained the situation saying that the landfill is "turning the county into the pay toilet of American and local residents into hazardous waste junkies" (qtd. in Moore).

What confirmed residents' concerns were the repeated environmental bridges of the company which proved that CWM did not conform to health and safety requirements. In January 1983, the Alabama department of environmental management fined CWM \$150.000 for not completing a leachate system, and poor storage of PCB's wastes. Again in March

1983, the company was fined \$ 13.500 by the EPA for failing to control leaks form PCB's containers and poor management procedures. In 1984 CWM paid \$600.000 as a civil penalty to EPA for PCB problems and inadequate groundwater monitoring system. The list of violations and hazardous loads goes on; in 1987 CWM paid \$200.000 settlement to Alabama department for not following waste analysis protocol and accepting expired pesticide substances. The record of violations expands as the company once more was fined \$300.000 in 1988, in August; CWM paid \$150.000 for accepting wastes unauthorized in RCRA permit and in September, paid another \$150000 for disposing the unauthorized wastes (Ventura County Sheriff's Department).

However in 1987 ACE switched to another different strategy since white discourse did not pay off. The group collaborated with Clearinghouse for Hazardous Wastes, Green Peace and organized rally "Toxic Trail of Tears" in Montgomery followed by a Caravan down to Livingston all the way to CWM landfill. Toxic Trail Tears was an explicit attempt to link hazardous wastes and minority communities, to raise residents' awareness to the serious health problems caused by Chemwaste (Alley, Faupel and Bailey 413-414).

The group was relatively small but its influence and recognition extended far beyond Sumter County. The ACE managed to attract national attention; soon groups including Sierra Club, Greenpeace, the National Toxic Fund Campaign and Citizens Clearing House for hazardous wastes became allies to ACE. These organizations assisted ACE by ensuring press coverage, legal counseling and strategic advice. ACE's members were identified as grassroots activists by the governmental body, a year after the rally, one of ACE leaders participated as a speaker in the Southern Environmental Assembly 88, a regional environmental meeting in Atlanta; through this assembly, ACE spread their message against CWM. Furthermore, the same member was honored by President Reagan as a leading environmental activist and Governor Guy Hunt presented her with the Award of Alabama Volunteer of the Year (Alley, Faupel and Bailey 414).

In 1990, the journey of ACE came to an end, as they realized that their goal of closing the facility was out of reach, also the withdrawal of key leaders who were hired by the National Toxics Fund Campaign led to the disclosure of ACE (Alley, Faupel and Bailey 415). Although the ACE was unsuccessful in shutting down Chemwaste, they were successful in bringing global attention to environment injustice in Emelle, the poor black and rural area. Their work can be considered one of the first environmental justice campaigns in US history.

Emelle story is a typical example of environmental racism. Alabama consists of 67 counties, yet the largest landfill in the whole nation was set in a county that blacks presented the majority of its residents. More precisely the landfill was installed in area that is 90 percent black, as if that was not enough even the surrounding area was predominately black. It is true that Chemical Waste landfill brought jobs and money to the county, but it also brought large amount of waste to it. It is unethical to exchange human health for money even if they were millions. This landfill is a toxic grenade that would eventually explode harming all residents; though the landfill was built on Selma Chalk, one of the safest and impermeable geological formations, this facility is not an exception; the leaking of buried waste is still probable given the enormous amounts processed by the landfill every year. It is just a matter of time.

This chapter is a testimony that African Americans did suffer from a great deal of environmental injustice over history. However, black persistence and resistance were positive steps toward changing that reality and achieving environmental justice. Unfortunately, African Americans are not the only victims of this injustice; they represent only a portion of a greater sample. Environmental racism is a deeply rooted and controversial issue in the USA. Solving this problem should not be shouldered on minorities only or poor residents; instead all segments of American society need to take part in the ongoing struggle

Endnotes

1. King's Bench Power or King's Bench Jurisdiction originates from Act of May 22, 1722 that created Pennsylvania Supreme Court of the Commonwealth. According to this act, the court has the power of the highest courts in England including the Court of King's Bench, Common Pleas, and Exchequer. The act was revised in 1836, and the Commonwealth Court was granted the King's Bench Power, that is to stop the proceedings in lower court and conducts its own review of the cases (*Commonwealth v. Onda, 376 Pa. 405(Pa.1954)*).

Conclusion

The United States faces a dilemma when addressing the issue of racism affecting minority, poor and disfranchised communities. Throughout US history, those groups have faced discrimination in housing, education, employment, and political arena. As if that was not enough a different kind of racism appeared. It is environmental racism. Under this new type, people of color bear the burden of industrial advancement and disproportionate distribution of toxic facilities and environmental hazards.

Environmental racism mirrors an existing pattern of social inequity; as LULUs emanating high levels of toxins are disproportionately set in neighborhoods that are predominately home to the nation's people of color and poor than other neighborhoods. Those communities have been repeatedly targeted because of their racial background and vulnerable economic and political position in the US. Consequently, members of these communities are more likely to suffer greater health and environmental risks than other citizens.

Efforts to address those disparities were hampered. Governmental and legal bodies along with the mainstream environmental groups overlooked the issue. Even worse, it could be seen that the US government more or less supported environmental discrimination, since governmental regulation and environmental laws were enforced in a discriminatory manner. The cleanup efforts were faster and more thorough and the stiffer the penalties were on polluters when the affected population are whites, ironically minority communities did not receive the same treatment. Consequently, the responsibility to abate this racism rested on the shoulder of the victimized communities.

The low socioeconomic status of minorities and poor population did not only bring waste and toxins to their communities. It also limited their chance to move out in search for a safer and healthier environment. Additionally, they realized that waiting for the government to respond could be hazardous to their health and that of their communities. Thus, having no other option, these affected communities took a stand and they were for an end to environmental discrimination. They launched a wave of small environmental struggles asking for environmental justice and their right to live, play and work in a healthy clean environment.

Not long before these local and seemingly isolated environmental fights emerged into a national potent grassroots movement that sought to address environmental and social inequities, threats to public health, disparate protection, discriminatory enforcement and biased treatment borne by the poor and minorities. Shortly thereafter, this environmental justice movement became a unifying cause across race, class, gender, and geographic lines, and terms "environmental justice" "environmental racism," had become household words. At the early stages of the environmental justice movement, its advocates channeled their efforts to improve the current conditions of poor and racial communities. They sought to challenge the identification of minorities' neighborhoods as throwaway communities, to stop the proliferation of noxious hazardous facilities in poor and racial communities. They worked to remedy the disparate effects of industrial pollution and environmental harm and to ensure the participations of disadvantaged communities as equal stakeholders in regulation processes involving their environment.

As the movement progressed, the activists worked toward achieving broader goals. They inspired to eliminate the roots of environmental discrimination, to empower marginalized individuals to be able to withstand any endeavor of environmental inequity. Moreover, they pressured the government to introduce redeemable solution to protect public health and environment. They stove to end racial oppression, economic exploitation and devaluation of the sacredness of human life. Unlike any other movement, the environmental justice movement was not only about protecting disfranchised communities; it was about the wellbeing of the American society as whole, demanding that no community with regard to race, class or income should be allowed to become a waste land or a sacrifice zone, and that environmental justice is right for all American citizens.

The environmental justice movement has come a long way since its modest beginning in small black community in Warren County, North Carolina. It added a new dimension to American mainstream organizations by integrating minorities' concern within the environmental agenda and policy making. It brought the issue of environmental discrimination to public attention after many decades of being in hide; it brought together researchers, activists, legal officials, government representatives and common citizens in an alliance to deal with ecological injustice.

Although it was difficult, the movement for environmental justice managed to get the government to respond to environmental injustice within racial communities. In response to environmental justice activism, President Bill Clinton issued executive order 12898 on the matter. The order attempts to address environmental injustice within the boundary of already existing federal regulations and laws. Representatives from different states presented several bills to the Congress to deal with environmental racism and restore the right of minorities and low income communities to reside in a clean healthy environment. Despite the fact that none of the proposed bills managed to proceed beyond introduction and referral into Congress, it was a step in the right path to end environmental racism and pave the way for future rigorous environmental regulations. Grassroots activism also prompted governmental agencies including the EPA to enact against ecological disparities.

Environmental racism is a deeply rooted issue since it is attached to a sensitive factor like race, which posed some of the most complicated and dangerous problems in US history. It will take more efforts by all segments of American society and more time to remove this racism for good. Yet, one cannot deny that grassroots activism was the first step for better reality.

Bibliography

Primary Sources

Congressional Bills

- United States. Cong. House. Committee on Government Operations. Legislation and National Security Subcommittee. Environmental Protection Agency Cabinet Elevation Environmental Equity Issues: Hearing Before the Legislation and National Security Subcommittee of Representatives, One Hundred Third Congress, First Session, April 28, 1993. Washington D.C: GPO, 1994. Internet Archive. Web. 21 May 2019.
- ---. Cong. House. *Environmental Justice Act of 1992*.102nd Cong. 1stSess.H.R 5326. Washington,
 D.C: GPO, 1992. Govtrack. Web. 21 March 2019.
- ---. Cong. House. *Environmental Justice Act of 1992*.103rd Cong. 1stSess. H.R.2105. Washington,
 D.C: GPO, 1992. Govtrack. Web. 21 March 2019.
- ---. Cong. House. Environmental Equal Rights Act of 1993.103rd Cong. 1stSess.
 H.R.1924.Washington, D.C: GPO, 1993. Govtrack. Web. 21 March 2019.
- ---.Cong. House. *Environmental Health Equity Information Act of 1993*.103rd Cong. 1stSess. H.R. 1925. Washington, D.C: GPO, 1993. Govtrack. Web. 21 March 2019.
- ---. Cong. Senate. Environmental Justice Act of 1992.102nd Cong. 1stSess. S.2802.

Washington: GPO, 1992. Govtrack. Web. 21 March 2019.

- ---. Cong. Senate. *Environmental Justice Act of 1993*.103rd Cong. 1stSess. S.1161. Washington, D.C: GPO, 1993. Govtrack. Web. 21 March 2019.
- ---. Cong. Senate. *Public Health Equity Act*.103rd Cong. 1stSess. S.1841. Washington, D.C: GPO, 1993. Govtrack. Web. 21 March 2019.

Official Documents

Ventura County Sherriff's Department. Ventura County Sherriff's Department Report on Waste Management. Movement Technology Institute. n.p. 20 Sept. 1991. Web. 23 May 2019.

- United States. Bureau of the Census. Census Tracts: Houston Tex. Standard Metropolitan Statistical Area, 1970 Census of Population and Housing. Washington D.C: GPO, 1972. United States Census Bureau. Web. 11 May 2019.
- ---. Dept. of Health and Human Services. *The Nature and Extent of Lead Poisoning In Children in the United States: A Report to Congress.* Washington, D.C: GPO, 1988.CDC Stacks.
 Web. 10 March 2019.
- ---. Environmental Protection Agency. *Environmental Equity: Reducing Risks for all Communities*. Washington, D.C: GPO, 1992. EPA. Web. 11 March 2019.
- ---. Environmental Protection Agency. *Environmental Risk Study for City of Chester, Pennsylvania.* Washington D.C: GPO, 1995. EPA. Web. 18 May 2019.
- ---. Environmental Protection Agency. *Report to Congress: Disposal of Hazardous Wastes*. Washington D.C: 1974. EPA. Web. 17 May 2019.
- ---.Environmental Protection Agency. *The EPA's Environmental Justice Strategy*. Washington, D.C: GPO, 1993. EPA. Web. 11 March 2019.
- ---. EPA Office of Environmental Justice.1998 Environmental Justice Biennial Report: Moving Towards Collaborative Constructive Problem-Solving. Washington, D.C: GPO, 1999. EPA. Web. 11 April 2019.
- ---. General Accounting Office. Siting of Hazardous Waste Landfills and their Correlation with Racial and Economic Status of Surrounding Communities. Washington, D.C: GPO, 1983. GAO. Web. 11 March 2019.

Executive Orders

Exec. Order No. 12898. 16 Feb. Reg. 7629(1994).

Historical Documents

US Constitution. Amend. XIV, Sec. 1.

US Department of Justice. Title VI, 42 U.S.C § 2000 (1964).

Judicial Cases

Arlington Heights v. Metropolitan Housing Dev. Corp., 429 U.S.252 (1977).

Bean v. Southwestern Waste Management Corp. 482 F. Supp. 673 (S. D. Texas, 1979).

Chester Residents v. Seif 132F. 3d 925 (3rd Cir. 1997).

Chester Residents for Quality Living v. Seif, 944 F. Supp. 413 (E. D. PA, 1996).

Secondary Sources

Dissertations

Gunn, Willie A. "From the Landfill to the Other Side of Tracks: Developing Empowerment Strategies to Alleviate Environmental Justice." Diss. LL. M. George Washington University, 2009.WorldCat.Web. 15 April 2019.

Documentaries and Videos

McCollough, George. "Laid to Waste: a Chester Neighborhood Fights for Its Future." Youtube. 14 Mar 2019. Web. 18 May 2019.

Ebooks

- Bell, Karen. Achieving Environmental Justice: A Cross-National Analysis. Bristol: Policy Press, 2014. Google books. Web. 18 March 2019.
- Bullard, Robert D., ed. Confronting Environmental Racism: Voices from the Grassroots. Boston: South End Press, 1993. Internet Archive. Web. 23 June 2018.
- ---. *Dumping in Dixie: Race, Class, and Environmental Quality*. 3rd ed. Boulder: Westview Press, 1990. Google books. Web. 10 June 2018.
- ---. Unequal Protection: Environmental Justice and Communities of Color. San Francisco: Sierra Club Books, 1994. Internet Archive. Web. 17 March 2019.
- Bullard, Robert D., and Beverly H. Wright. The Wrong Complexion for Protection: How the Government Response to Disaster Endangers African American Communities. New York: New York University Press, 2012.Google books. Web. 14 May 2019.

- Bunyan, Bryant, ed. *Environmental Justice: Issues, Policies and Solutions*, 1995. WashingtonD.C.: Island Press. Google books .Web. 28 March 2019.
- Carroll, Daniel J., and Steven J. Weber. EPA Needs Consistently Implement the Intent of the Executive Order on Environmental Justice: EPA Evaluation Report. PA: Diane Publishing Co, 2004. Book Depository. Web. 20 April 2019.
- Cole, Luke W., and Sheila R. Foster. From the Ground up: Environmental Racism and the Rise of the Environmental Justice Movement. New York: New York University Press, 2001. Amazon. Web. 21 March 2019.
- Cutter, Susan L. *Hazardous Vulnerability and Environmental Justice*. England: Taylor & Francis, 2006. Google books. Web. 11 March 2019.
- Dunlap, Riley E., and Angela G. Mertig, eds. American environmentalism: The US Environmental Movement, 1970-1990. London: Routledge, 2013. Google books.
 Web. 16 May 2019.
- Dworkin, Ronald . *Taking Rights Seriously*. Cambridge, Mass.: Harvard University Press, 1978. Internet Archive. Web. 19 March 2019.
- Foreman, Christopher H., Jr. *The Promise and Peril of Environmental Justice*. Washington,
 DC: Brooking Institution Press, 1998. Environment & Society Portal. Web. 13 April 2019.
- Goldman, Benjamin A., et al. *Hazardous Waste Management: Reducing the Risk.*Washington, D.C: Island Press, 1989. Google books. Web. 21 May 2019.
- Hughes, J. Donald, ed. *The Face of the Earth: Environment and World History*. London: Routledge, 1999. Amazon. Web. 19 March 2019.
- Logan, John, and Harvey Luskin Molotch. *Urban Fortunes: The Political Economy of place*. California: University of California Press, 1987. Google books. Web. 25 May 2019.

McGurty, Eileen. Transforming Environmentalism: Warren County, PCBs, and the Origins of Environmental Justice. New Brunswick, NJ: Rutgers University Press, 2007.Amazon.Web. 10 Sept. 2018.

- Mendel-Reyes, Meta. *Reclaiming Democracy: The Sixties in Politics and Memory*. New York: Routledge, 1996. Internet Archive. Web. 20 May 2019.
- Mohai, Paul, and Bryant Bunyan, eds. *Race and the Incidence of Environmental Hazards: A Time for Discourse*. Boulder, Co: Westview Press, 1992. Amazon. Web. 15 March 2019.
- Sandler Ronald., and Phaedra C. Pezzullo, eds. Environmental Justice and Environmentalism: The Social Justice Challenge to the Environmental Movement.
 Massachusetts: MIT Press, 2007. Amazon. Web. 26 March 2019.
- Shabecoff, Philip. *Earth Rising: American Environmentalism in the 21stCentury*. Washington,D.C: ISLAND Press, 2000. Google books. Web. 17 March 2019.
- Sicotte, Diane. From Workshop to Waste Magnet: Environmental Inequality in the Philadelphia Region. New Jersey: Rutgers University Press, 2016. Google books. Web. 19 May 2019.
- Sonneborn, Liz. *The Environmental Movement: Protecting Our Natural Resources*. PA: Chelsea House Publications, 2007. Amazon. Web. 21 April 2019.
- Switzer, Jacqueline Vaughn. *Environmental Activism: A Reference Handbook*. CA. Santa Barbara: ABC- CLIO, 2003. Google books. Web. 21 April 2019.
- Shrader-Frechette, Kristen S. Risk and Rationality: Philosophical Foundations for Populist Reforms. Berkeley: University of California Press, 1992. Google books. Web. 18 April 2019.

Ebook Chapters

- Bullard, Robert D. "Dumping on Houston's Black Neighborhoods." *Energy Metropolis: an Environmental History of Houston and the Gulf Coast.* Eds. Martin V. Melosi and
- Joseph A. Pratt. Pittsburgh: University of Pittsburgh Press, 2007. Google books. Web. 11 May 2019.
- ---."Environmental Justice as a Working Model."Dumping in Dixie: Race, Class, and Environmental Quality. 3rd ed. Boulder: Westview Press,1990. Google books.Web. 17 April 2019.
- Cable, Sherry, Tamara Mix, and Donald Hastings." Mission Impossible ? Environmental Justice Activists" Collaborations with Professional Environmentalists and with Academics."
 Power, Justice, and the Environment: A critical Appraisal of the Environmental JusticeMovement. Eds. David N. Pellow and Robert J. Brulle. Cambridge, MA: MIT Press, 2005.Google Books. Web. 18 April 2019.
- Jones, James M."The Concept of Racism and its Changing Reality." Impacts of Racism on White Americans. Eds. Benjamin P. Bowser & Raymond G. Hunt. Beverly Hills, CA: Sage, 1981. Goggle books. Web. 28 March 2019.
- Mohai, Paul, and Bryant Bunyan. "Demographic Studies Reveal a Pattern of Environmental Injustice." *Environmental Justice*. Ed. Jonathan S. Petrikin. San Diego, Calif: Greenhaven Press, 1995. Amazon. Web. 10 March 2019.
- ---. "Environmental Racism: Reviewing the Evidence: School of Natural Resources." Race and the Incidence of Environmental Hazards: A Time for Discourse. Boulder, Co: Westview Press, 1992. Amazon. Web. 11 April 2019.
- White, Carol W. "Race and Ethnicity." *Grounding Religions: A Field Guide to the Study of Religion and Ecology*. Eds. Whitney A. Bauman, Richards Bohannon and Kevin J.
 O'Brien. 2nd Ed. London: Routledge, 2017. Google books. Web. 15 April 2019.

Encyclopedias

Siebenthaler, Donna J. "Sumter County." Encyclopedia of Alabama. Web. 21 May 2019.

Journal Articles

- Adeola, Francis O. "Environmental Hazards, Health, and Racial Inequity in Hazardous Waste Distribution." *Environmental and Behavior* 26.1 (1994):99-126. SAGE.
 Web.12March 2019.
- Apelberg, Benjamin J., Timothy J. Buckley, and Ronald H. White. "Socioeconomic and Racial Disparities in Cancer Risk from Air Toxics in Maryland." *Environmental Health Perspectives* 113.6 (2005):693-99. Ehp. Web. 11 March 2019.
- Been, Vicki, and Francis Gupta. "Coming to the Nuisance or Going to the Barrios- A Longitudinal Analysis of Environmental Justice Claims." *Ecology Law Quarterly* 24.1 (1997): 1-56. Heinonline. Web. 10 March 2019.
- Bailey, Conner, Charles E. Faupel, and Susan F. Holland. "Hazardous Wastes and Differing Perceptions of Risk in Sumter County, Alabama." *Society and Natural Resources* 5.1 (1992): 21-36. ResearchGate. Web. 23 May 2019.
- Bullard, Robert D. "Environmental Justice in the 21st Century: Race Still Matters." *The Phylon Quarterly* 49.3(2001): 151-171. ResearchGate. Web. 15 April 2019.
- ---. "Race and Environmental Justice in the United States." *Yale Journal of International Law* 18.1 (1993): 319 -334.Heinonline. Web. 4 March 2019.
- ---. "Solid Waste Sites and the Black Houston Community." *Sociological Inquiry* 53 (1983): 273-288. Wiley Online Library. Web. 25 March 2019.
- Bullard, Robert D., and Beverly H. Wright. "The Quest for Environmental Equity: Mobilizing the African American Community for Social Change." Society & Natural Resources: an International Journal 3.4(1990): 301-311. Taylor & Francis Online. Web. 12 May 2019.

- Clark, Lara, Dylan B. Millet, and Julian D. Marshan. "National Patterns in Environmental Injustice and Inequality: Outdoor NO2 Air Pollution in the United States." *Plos One* 9.4 (2014):1-8.Plos One. Web. 14 March 2019.
- Dion, Catherine, Paul Lanoie, and Benoit Laplante. "Monitoring of Pollution Regulation: Do Local Conditions Matter?" *Journal of Regulatory Economics* 13.1(1998):5-18.
 Springer Link. Web. 10 March 2019.
- Faupel, Charles E., Conner Bailey, and Gary Griffin. "Local Media Roles in Defining Hazardous Waste as a Social Problem: the Case of Sumter County, Alabama." *Sociological Spectrum: Mid-South Sociological Association* 11.4(1991): 293-319. Taylor & Francis Online. Web. 22 May 2019.
- Greenberg, Michael. "Proving Environmental Inequity in Siting Locally Unwanted Land Uses." *Risk Issues in Health and Safety* 4.3(1993):235-52. University of New Hampshire Scholars Repository. Web. 10 March 2019.
- Geiser, Ken, and Gerald Waneck, "PCBs and Warren County." *Science for the People* 15.4 (1983): 13-17. Web. 5 April 2019.
- Hamilton, James T. "Testing for Environmental Racism: Prejudice, Profits, Political Power?" Journal of Policy Analysis and Management 4.1(1995): 107-132. JSTOR. Web. 14 March 2019.
- Holifield, Ryan. "Defining Environmental Justice and Environmental Racism." *Urban Geography* 22. 1 (2001): 78-90. ResearchGate. Web. 14 March 2019.
- Kaswan, Alice. "Environmental Justice: Bridging the Gap between Environmental Laws and 'Justice'." American University Law Review 47. 2 (1997): 222-230. SSRN. Web. 19 March 2019.

- Konisky, David M. "Inequities in Enforcement? Environmental Justice and Government Performance." *Journal of Policy Analysis and Management* 28.1(2009): 102-121.Wiley Online Library. Web. 20 March 2019.
- Konisky, David M., and Christopher Reenock. "Compliance Bias and Environmental (IN) Justice." *The Journal of Politics* 75.2 (2013): 506-519. JSTOR. Web. 10 March 2019.
- Kuehn, Robert R. "A Taxonomy of Environmental Justice." *Environmental Law Reporter* 30(2000): 10681-10703. Western Libraries. Web. 12 March 2019.
- Lavelle, Marianne, and Coyle Marcia. "Unequal Protection: The Racial Divide InEnvironmental Law A Special Investigation." *The National Law Journal* 15.3 (1992).Marianne Lavelle. Web. 10 March 2019.
- Lyman, Jen-LW., and Eric K. Yamamoto. "Racializing Environmental Justice." *University of Colorado Law Review* 72 (2001): 312-360. CORE. Web. 12 March 2019.
- Maantay, Juliana. "Mapping Environmental Injustices: Pitfalls and Potential of Geographic Information Systems in Assessing Environmental Health and Equity." *Environmental Health Perspectives* 110.2(2002): 161-171. JSTOR. Web. 12 March 2019.
- Melosi, Martin V. "Equity, Eco-racism and Environmental History." *Environmental History Review* 19. 3(1995): 1-16. JSTOR. Web. 16 March 2019.
- Mirabelli, Maria C., et al. "Race, Poverty, and Potential Exposure of Middle-School Students to Air Emission from Confined Swine Feeding Operations." *Environmental Health Perspectives* 114.4(2006):591-96. Ehp. Web. 10 March 2019.
- Mohai, Paul, David Pellow, and J. Timmons Roberts. "Environmental Justice." Annual Review of Environment and Resources 34.1(2009): 405-30. Annual Reviews. Web. 10 March 2019.
- Park, Rozelia S. "An Examination of International Environmental Racism through the Lens of Transboundary Movement of Hazardous Wastes." *Indiana Journal of Global Legal*

Studies 4.2(1998):659-709. Maurer School of Law Indiana University. Web. 10 March 2019.

- Pastor, Manuel, Jr., Jim Sadd, and John Hipp. "Which Came First? Toxic Facilities, Minority Move-in and Environmental Justice." *Journal of Urban Affairs* 23.1(2001): 1-21. Wiley Online Library.Web.12 March 2019.
- Pulido, Laura, Devon Pena. "Environmentalism and Positionality: The Early Pesticide Campaign of the United Farm Workers' Organizing Committee, 1965-1971." *Race, Gender & Class* 6.1 (1998): 33-50. ResearchGate. Web. 15 April 2019.
- Roberts, R. Gregory. "Environmental Justice and Community Empowerment: Learning from the Civil Rights Movement." *American University Law Review* 48.1 (1998): 229-267. American University Law Review.Web.14 April 2019.
- Rodes, Robert E. "Social Justice and Liberation." *Notre Dame Law Review* 70.4 (1996):619-29. SSRN. Web. 15 March 2019.
- Rodgers, William H., Jr. "Executive Orders and Presidential Commands: Presidents Riding to the Rescue of the Environment." *Journal of Land Resources & Environmental Law*, 21 (2001): 13- 24. ResearchGate. Web. 12 April 2019.
- Scholz, John T., and Cheng-Lung Wang."Cooptation or Transformation? Local Policy Networks and Federal Regulatory Enforcement." *American Journal of Political Science* 50.1 (2006): 81-97. Wiley Online Library. Web. 10 March 2019.
- Taylor, Dorceta E. "The Rise of the Environmental Justice Paradigm: Injustice Framing and the Social Construction of Environmental Discourses." *American Behavioral Scientist* 43.4 (2000): 503-580.ResearchGate.Web. 5 April 2019.

Newspaper Articles

Hinds, Michael D. "Pennsylvania City Hopes It's Bouncing Back from the Bottom." *New York Times* 5 Jan. 1992. New York Times. Web. 18May 2019.

- Janofsky, Michael. "Suit Says Racial Bias Led to Clustering of Solid Waste Sites." *New York Times* 29 May 1996. The New York Times. Web. 18May 2019.
- Staples, Brent. "Life in the Toxic Zone." *New York Times* 15 Sept 1996. New York Times. Web. 19 May 2019.

Pamphlets

Environmental Studies Capstone. Mapping Environmental Justice in Delaware County, PA.
Pennsylvania: Swarthmore College, 2006. Chester Environmental Justice. Web. 19
May 2019.

Reports

- Bullard, Robert D., et al. Toxic Wastes and Race at Twenty: 1987-2007 Grassroots Struggles to Dismantle Environmental Racism in the United States, 2007. The United Church of Christ. Web. 15 March 2019.
- Cerrell Associates, Inc. Political Difficulties Facing Waste-to-Energy Conversion Plant Siting (1984).
- Costner, Pat, and Joe Thornton. *Playing with Fire: Hazardous Waste Incineration, a Greenpeace Report,* 1990. Laurier Archives. Web. 8 March 2019
- Taylor, Dorceta E. *The State of Diversity in Environmental Organizations*, 2014. Green 2.0.Web. 19 March 2019.

Web Pages and Websites

- Braimah, Ayodale. Houston (TSU) RIOT (1967). Black Past . n.p. 14 Dec. 2017. Web. 16 April 2019.
- Bullard, Robert. "Environment and Morality: Confronting Environmental Racism in the US". October 2004. ResearchGate. Web. 17 April 2019.
- "Cherokee Biotechnology Plant Defeated." *Chester Environmental Justice*. n.p. 11 Nov. 1997.Web. 16 May 2019.

- "Chester Lawsuit Declared Moot by US Supreme Court." *Chester Environmental Justice*. n.p. 26 Jan. 1999. Web. 16 May 2019.
- "Chester Residents Win Case against DELCORA." *Chester Environmental Justice*. n.p. 14 Feb. 1998. Web. 16 May 2019.
- "Clustering of Waste Facilities in Chester USA." *Environmental Justice Atlas.* n.p. 8 June 2015. Web. 15 May 2019.
- Davidson, Curt. "Emelle, Alabama: Home of the Nation Largest Hazardous Waste Landfill." *Environmental justice Case Studies*. n.p. n.d. Web. 22 May 2019.
- "Delaware Solid Waste Authority to Ship Delaware State Waste to Chester, PA." *Chester Environmental Justice*. n.p. 2 May 1997. Web. 17 May 2019.
- "DEP Denies Tire-Burning Permit to Kimberly-Clark Tissue Corporation." *Chester Environmental Justice*. n.p. n.d. Web. 18 May 2019.

"Environmental Justice in Michigan." WordPress. n.p. n.d. Web.6 April 2019.

- Environmental Protection Agency. "Environmental Justice: Learn About Environmental Justice." United States Environmental Protection Agency. n.p. 7 Nov.2018.Web. 11 March 2019.
- Environmental Protection Agency. "National Environmental Justice Advisory Council." *United States Environmental Protection Agency*. n.p. Jan. 19,2017. Web. 21 April 2019.
- ---. National Environmental Justice Advisory Council 20-Year Retrospective Report. United States Environmental Protection Agency. n.p. 19 Jan.2017. Web. 11 March 2019.
- Ewall, Mike. "Environmental Racism in Chester." *Chester Environmental Justice*. n.p. 23 July 1999. Web. 18 May 2019.
- "Federal Court Gives Green Light to Environmental Racism Suit against PA DEP." *Chester Environmental Justice*. n.p. 31 Dec. 1997. Web. 18 May 2019.
- Hansan, J. E. "Jim Crow laws and racial segregation." *Social Welfare History Project.* n.p. 2011. Web. 21 April 2019.

"History of Economic Development in Chester." Chester Digital. WordPress. n.d. Web. 17

May 2019.

"Houston, Texas Population 2019." World Population Review. n.p. n.d. Web. 11May 2019.

- Kelly, Morgan. "The History of Chester." *Chester Environmental Justice*. 14 Feb 1998. Web. 17 May 2019.
- Kurts, Heather. "Environmental Injustice in Chester, PA." *Chester Environmental Justice*. n.p. 16 Oct. 1996. Web. 18 May 2019.
- Moore, Gary. "Court Ruling Renews Alabama Waste Crisis". *Los Angeles Times*. n.p. 8 July 1992. Web. 21 May 2019.
- Murray, Andy. "Waste Treatment Facilities in Chester." *Chester Environmental Justice*. n.p. 26 Jan 1999. Web. 17 May 2019.
- "Ogborne Construction/ Demolition Waste transfer station defeated!." *Chester Environmental Justice*. n.p. 10 June 1998. Web. 21 May 2019.
- Pennington, Morgan. 8 Ways Environmental Organizations can Support the Movement for Environmental Justice. WEACT. n.p. n.d. Web. 20 April 2019.
- Rigell, Laura. "Chester Residents Blockade Westinghouse Incinerator, United States, 1992-1994." *Global Nonviolent Action Database*. n.p. 28 April 2013. Web. 17 May 2019.
- Rosa-Aquina, Paola. "What the Environmental Justice Movement Owes Martin Luther King, Jr." Grist.Org. n.p. Jan. 21 2019. Web. 16 April 2019.
- Russell. "The Perpertrators ... Russell, Rea and Zappala." *Chester Environmental Justice*. n.p. 26 Jan 1999. Web. 18 May 2019.
- Wegner, Asley. PCB Protests. NCPEDIA. n.p. 2012. Web. 16 April 2019.
- Wintz, Carry D. Fourth Ward, Houston. TSHA. n.p. n.d. Web. 13 May 2019.