

RESEARCH REPORT

THE ANATOMY OF ENVIRONMENTAL RACISM AND INJUSTICE IN SOUTH AFRICA : A CASE STUDY OF ALEXANDRA

NAME : **KGOTLAETSHO BANTSI**
STUDENT NUMBER : **9012630 M**
SUPERVISOR : **PROFESSOR JACKLYN COCK**
HEAD OF THE DEPARTMENT: **PROFESSOR B BOZZOLI**

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CHAPTER ONE: INTRODUCTION

The aim of this research was to study the relation between environmental degradation and race, and embryonic environmental grassroots activism in South Africa. Alexandra, an African township in Gauteng's Greater Johannesburg Metropolitan area, was employed as a case-study to examine the above-mentioned issues.

Background: Environmental Problems in South Africa

The inception of a "new" non-racial, non-sexist and democratic South Africa, marked by the April 1994 national elections has raised hopes for a better quality of life for all South Africans. These hopes have been further raised and buttressed by the new government's Reconstruction and Development Programme (RDP), with its main aim of transforming South African society and thus ensuring "a better life for all" and "meeting the basic needs of the people". (ANC, 1994). There is no doubt that the latter objectives will have far-reaching social, economic, political and indeed environmental ramifications. In fact, the recent development discourse, emphasise the inseparable and integrated relationship between the environment and development. In the past development has often been at the expense of the environment and the methods used to effect economic growth have invariably led to environmental degradation, (Ngobese and Coetzee, 1995).

Meeting the basic needs of the ever-increasing increasing population - at 40 million and an average annual growth rate of 2,7% according to the 1992 statistics (South Africa Foundation, 1995) - will undoubtedly intensify pressure on our country's renewable and non-renewable natural resources on which our country's prosperity depends. Furthermore, all sectors of our economy will have to be mobilised in order to engender economic growth and redistribution and thus "a better life for all". However the much-needed economic growth is going to have significant environmental impacts.

Energy is critical to ensuring the running of the economy and engendering development. However, due to the absence of proper energy policies the environment and people have

been adversely affected. Energy use accounts for a large portion of air pollution through use in domestic, transport, industry and power sectors. It is also a major source of greenhouse gases and sulphuric acid rain through fossil fuels (especially coal) (IDRC, 1994). South Africa's proportion of total primary commercial energy consumption to GDP is twice that of the USA, four times that of Japan (ibid).

The mining and the industrial sectors are also key sectors in the South African economy and thus they are also indispensable to the reconstruction and development of the country. Yet, they also give rise to a number of serious environmental effects. Since late last century, the mining and the beneficiation of a variety of minerals, in particular gold, has been the driving force behind economic development, particularly in the Witwatersrand area. Current mineral sales amount to some R 37 billion, of which as much as three quarters is to foreign importers. The remainder - domestic sales - contribute about 12 % to the GDP of the country (ibid). Coal and asbestos are also important sectors in the mining industry. However, all these sectors in spite of their economic importance give rise to a number of serious environmental effects. In addition to dust, gold mining generates large volumes of slimes containing finely crushed rock and liquid residues containing sulphuric acid. Slime dams easily erode and are a source of severe water and dust pollution. The latest large accident took place in February 1994 in Merriespruit and involved the rupture of a slime dam operated by Harmony Gold Mine. This caused considerable damage.

Coal mining also causes adverse environmental impacts. Mine employees and nearby communities can be affected. The location of the major coal deposits poses considerable problems for water quality: most occur in the upper parts of the major river systems, such as the Vaal, Olifants, Usutu, Komati, Pongola and Tugela rivers. Sulphuric acid drainage leads to groundwater pollution. The coal dumps also burn over long periods and cause air pollution. The IDRC reports that asbestos is "an extremely hazardous substance causing asbestosis, mesothelioma, and lung cancer" (IDRC, 1994 : 77). Furthermore, all diseases have latency periods of over 20 years so that without adequate records of the health of asbestos mine workers and nearby communities, it is not possible to assign cause and effect.

The asbestos fibres from the mine dumps are the major cause of environmental pollution, through both wind borne air pollution and polluted water draining the dumps (ibid).

IDRC (1994) notes that South Africa's industrial sector is heavily concentrated on mineral beneficiation and chemical process with major negative impacts on the environment. Furthermore, the industrial sector is particularly energy-intensive. Waste is also another particularly significant manifestation of the adverse effects of the afore-mentioned economic sectors on the environment and people's health. Industries are responsible for the generation of waste in gaseous, liquid and/or solid form. Chemical, metals, metallurgical and the manufacturing industries account for 20 million tonnes per year of solid waste; mining tailings account for 240 - 380 and urban (municipal) waste accounting for 15 million tonnes per year. Of these wastes, hazardous wastes are estimated at about 1.9 million tonnes per year (ibid).

Domestic waste is a particular area of concern for this study. The latter type of waste is especially serious in African townships. Refuse collection and disposal services have either come to a total halt or are in a dismal situation. Domestic waste can be toxic, for instance, many of the chemical products used in homes are toxic, like pesticides, medical drugs, paints, solvents and batteries (On Track, 1994).

The preceding paragraphs have demonstrated that the process of engendering a "better life for all" through the RDP is going to pose a serious dilemma with regard to environmental concerns. The much-needed economic growth could also lead to serious environmental degradation, health threat and illnesses among workers and communities. It is therefore imperative to ensure that environmental and health concerns be an integral part of development policies. This would ensure that sustainable development is achieved. In ensuring that sustainable development and environment is achieved, an Integrated Environmental Management (IEM) approach is vital. The indispensability of this approach appears to have thus far gained large support. For instance see literature by Ngobese and Cock (1995) and the IDRC report (1994). The IEM must conduct environmental impact

assessments with a particular focus on the social impact and participation, (Ngobese and Cock 1995).

Conspicuously absent in most of the research is an analytical examination of how sources of pollution, environmental degradation and the concomitant ill-health have disproportionately impacted on different racial groups as a result of past racist colonial, segregationist and apartheid policies that have been at the root of the political, economic and social fibre of South Africa. The unabated nature and the perpetuation of racially biased environmental degradation is certainly an anathema with regard to the unfolding political developments in South Africa. The central tenet of the liberation struggle and indeed that of the new government, was to ensure the prevalence of equality and justice for all based on non-racialism and non-sexism. It is therefore, to ensure that in every sphere of our society, including the environment, these principles are not compromised.

"... In addition to the crisis in education, housing, employment and a host of other problems, the new democracy will be left with apartheid's environmental legacy ... it is often poor communities - invariably blacks, particularly Africans (my addition) - that are the victims of the government's weak environmental policies", Nelson Mandela quoted in Schreiner (1995).

The latter quote indicates that there is an emerging but slow attention to the fact that racism and injustice have also manifested in and characterised the environment. Invariably, blacks, Africans in particular, disproportionately bear the brunt of environmental degradation and the concomitant ill-health. There is also a growing body of literature in South Africa that echoes the latter sentiments. For instance, Cock and Koch (1991), Durning (1990), IDRC et al (1994) among others. There are also environmental groupings under the auspices of the Environmental Justice Networking Forum (EJNF) that are making a connection between environmental issues, race and injustice. In spite of the latter developments, both academic and popular activity remain embryonic with regard to the concept of

environmental racism and injustice, despite the pervasive and prevalent nature of this in South Africa.

Although there is well documented research on the fact that Africans in particular live under conditions of environmental degradation due to apartheid policies, there has not been any comprehensive research studies to particularly examine the relationship between race, environmental degradation and the concomitant ill-health and in the process employing the concept of environmental racism and injustice as an analytical and conceptual tool. Due to the inherently unequal and discriminatory racist policies, it is therefore logical to conclude that environmental degradation and the accompanying ill-health were and are not uniform. IDRC et al reiterate the latter point, "The environmental costs owed by society are almost always paid for by those least able to do so: the poor (Africans). In this way environmental degradation is a visible expression of social inequity" (1994 : 1). Even though most of the literature on the unequal impact of environmental degradation uses class as a variable to demonstrate the latter point, this study contends that due to the intertwined nature of race and class in South Africa poor people who bear the brunt of environmental degradation and ill-health are therefore invariably African.

Failure to draw a link between environmental issues, race and justice could be attributed to the predominantly traditional and conservative environmental paradigm. This perspective focused exclusively on the preservation of wilderness areas and particular species of plants and animals. As such this approach could be taken to be misanthropic as it was failing to emphasise the importance of linking the struggle against social injustice and the exploitation of people with the struggle against the abuse of the environment (Cock, 1991). On the other hand, the slowly emerging environmental movement and literature that sees environmental issues as integral to social justice could be attributed to the alternative progressive perspective that has begun to emerge.

This perspective views environmental issues as deeply political in the sense that they are embedded in access to power and resources in society (ibid). This study with its objective

of examining environmental racism and injustice and forms of mobilisation against the latter embraces this latter progressive perspective. In looking at environmental racism and injustice one can not preclude the examination of struggles and activities aimed at eradicating these forms of injustice. When confronted with other forms of injustices African communities have not been passive subjects of these injustices, instead they have actively engaged in different forms of struggle to overcome those injustices. These struggles have been largely characterised by collective action in strong social movements.

Indeed Alexandra township, the case-study of this research, gained prominence for its long history of political resistance against segregationist and Apartheid policies. It is therefore against this background that grassroots environmental activism in Alexandra will be examined by this study, using the notion of social movements as a key conceptual tool. Literature on collective action and social movements point to the fact there are "cycles" in the history of social movements. Conditions or a heritage for new cycles of action or emergence of social movements are actually created by the past generations of social movement activity, Tarrow (1991). Against this background, it would therefore be important to also fathom the historical nature of community involvement of the grassroots activist. In short, is the present activism around environmental issues rooted in the legacy the earlier struggles for national liberation?

Also important with regard to grassroots activism around environmental issues is what according to these activists and groupings are environmental issues. Are environmental issues addressed exclusively, or do they integrate the latter into the broader socio-economic problems besetting the Alexandra community? For instance it emerged that over 50% of Alexandra residents are unemployed, with a daily influx of illegal foreigners and the subsequent problems of overcrowding, land shortage the proliferation of *mekhukhu* (shacks) and the concomitant social problems such as crime and general social tension among residents.

Another central contention of this study is that environmental racism, injustice and the concomitant ill-health in African townships in particular, can not be understood in the absence of an analysis of apartheid planning and urbanisation policies. Various literature point to the fact that environmental degradation and ill-health in black communities is as a result of the latter policies. Central to the segregationist and apartheid discourse has been the perpetuation of white political and economic supremacy. Among other things this meant the creation of a "white" and "black" South Africa through various specific policies such as pass laws, influx control and the bantustan systems, Marks and Tropido (1988), Posel (1987 and 1991), Swilling (1991) and Mabin (1992). Furthermore, these policies were aimed at ensuring "orderly urbanisation" and also ensuring that African are mere sojourners in "white" South Africa. As such this provided the apartheid government with the justification of not providing African townships with sufficient infrastructural services such as housing, electricity, proper sanitation, among a plethora of other essential services.

The IDRC report, reiterates the latter points, "South African cities are a particular heritage of apartheid, which created dualism in urban areas. . . As a result, black communities are not serviced adequately in terms of basic services, they are the victims of industrial pollution, they are located close to toxic waste dumps and they are subjected to dense settlement patterns with no green spaces . . . Apartheid urban planning allowed different standards for services according to race, allowing for the provision of inferior services in black areas. . . There have been very few environmental policies drafted by local government to guide holistic town planning within their areas of jurisdiction. The boundaries of the local government were defined by racial laws and not by logical town planning procedures. As a result only areas that contributed rates and taxes were serviced by the local government. . . Communities that were denied municipal franchise were the victims of environmental problems" (1994 : 58, 59).

The latter points are therefore indicative of poor and racist apartheid planning and the resultant environmental degradation and ill-health. For instance, inadequate or total lack of electricity in black townships has meant the burning of coal and paraffin for heat, light and

cooking, leading to high incidents of child respiratory diseases. The siting of polluting industries on the doorsteps of black communities have exacerbated the latter situation. For instance, the Indian township of Merebank, near Durban, is surrounded by two oil refineries, a paper mill, a chromium processing plant and several smaller chemical factories (The New Scientist, 10 December 1994). The latter article furthermore notes that Merebank's children are ten times more likely to suffer from respiratory disorders than children who live nearby. Furthermore, IDRC et al (1994) notes that the areas of worst air pollution in South Africa include : Merebank, Cape Town, the Vaal Triangle, Soweto and other African townships in Gauteng. It is therefore against this background that Alexandra as a case-study of environmental degradation and ill-health due environmental racism and injustice shall be studied and understood.

The above clearly demonstrate the prevalence of environmental racism and injustice as a result of apartheid policies. Notwithstanding this, there is still no comprehensive research on specifically the relationship between race and environmental degradation and ill-health in South Africa.

Environmental Racism

In the United States the concept of environmental racism and injustice has gained wide acceptance. The 1987 United Church of Christ Commission on Racial Justice (UCCCRJ) report entitled, "A National Report on the Racial and Socio-economic Characters of Communities with Hazardous Waste Sites", was instrumental in coining the concept. Bullard (1993) notes that the study was the first effort to represent a comprehensive national analysis of the relationship between hazardous waste and racism. Some of the most important findings of the study are as follows :

- Race proved to be the most significant among the variables tested in association with the location of commercial hazardous waste facilities.
- Communities with the highest number of commercial hazardous waste facility had the highest composition of minority residents.

- In communities with one commercial hazardous waste facility, the average minority percentage of the population in community without such facilities,
- Although socio-economic status appeared to play an important role in the location of hazardous waste facilities, race still proved to be the most significant,
- Three out of five largest commercial hazardous waste landfills in the US were located in predominately black or Hispanic communities. These three landfills accounted for four percent of the total estimated commercial landfill capacity in the nation.

Some of the findings on commercial and uncontrolled hazardous waste facilities were as follows :

- Three out of every five African-American and Hispanic Americans lived in communities with an uncontrolled toxic waste site,
- Over 15 million African-American lived in communities with one or more site,
- Approximately half of all Asians, Pacific Islanders, and Native-Americans lived in communities with uncontrolled toxic waste sites.

The above finding demonstrates the comprehensive nature of the UCCCI study and indeed the fact that minority groups disproportionately bear the cost of environmental degradation largely because of their racial status. Bullard (1993) through his book, Confronting Environmental Racism : Voices from the Grassroots, further popularised the notion of environmental racism and injustice and emergence of environmental justice movement among minority groups, particularly among African-Americans.

Bullard (1993) believes that race is at the core of understanding the US society and indeed its environmental problems. People of colour, (African-Americans, Latinos, Pacific

Islandets, and Native Americans) are disproportionately harmed by industrial toxins on their jobs and in their neighbourhoods. As the UCCCCJ study suggests, the class status of minority groups play is superseded by the racial variable as minority groups considered to be middle class also disproportionately bear the brunt of environmental degradation.

Lee in Bullard, demonstrates that racism and therefore environmental racism can be consciously or unconsciously enforced and buttressed by the legal, cultural, religious, educational, economic, political, environmental and military institutions of society. His dimension of the definition of race is particularly significant as it could be argued that even in the absence of explicit apartheid policies and institutions it does not mean that environmental racism and injustice does not exist nor it is not practised. The definition is as follows:

"Racism is racial prejudice plus power. Racism is the intentional or unintentional use of power to isolate, separate and exploit others. This use of power is based on a belief in superior racial origin, identity or supposed racial characteristics. Racism confers certain privileges on and defends the dominant group which in turn sustains and perpetuates racism. Both consciously and unconsciously racism is enforced and maintained by the legal, cultural, religious, educational, economic, political, environmental and military institutions of societies. Racism is more than just a personal attitude, it is the institutionalised form of that attitude" (UCCCCJ, 1987 : p.x.), quoted in Lee (1993 : 41).

The 1993 study in the US National Law Journal, further confirmed and highlighted the existence of environmental racism and injustice. The latter study highlighted an important dimension of environmental racism and injustice. The study examined the relationship between race and the enforcement of environmental laws by the Environmental Protection Agency (EPA). The findings were that penalties against violations of environmental regulations and laws in minority areas were less than those imposed for violations against similar offences in largely white areas. The implications of these findings are indeed far-

eaching. In fact, these findings vindicate the above outlined definition of racism purporting that racism - and therefore environmental racism - is maintained through legal institutions.

These findings could be illuminating for this research particularly when the fact that according to the new interim constitution everybody has the right to a healthy environment is taken into cognisance. However, when juxtaposed with the current institutional framework pertaining to environmental issues it is doubtful if the right to a healthy environment can be ensured. Various literature note that legislative and administrative mechanisms regarding environmental management are fraught with serious problems. For instance, fragmentation, lack of transparency, inadequate inspectorate/enforcement are some of the most serious legislative and administrative problems besetting environmental management, IDRC et al (1994) and Sugrue (1994).

The US National Law Journal findings and the latter issues in South Africa demonstrate issues pertaining to environmental justice can not be addressed adequately without an examination of the institutional framework relating to and governing environmental management. It is therefore against this background that focus on the legislative framework of environmental management shall form an integral part of the study.

In spite of the apparent lack of justice by the US environmental legislation, minority environmental grassroots mobilisation has continued to challenge environmental racism and injustice. Bullard (1993), notes that this grassroots mobilisation is deeply anchored the road in struggle for social justice. Lee in Bullard reiterates the latter point further, "With a long tradition of connection to the land, concern for the natural world, and struggle for social justice, people of colo(u)r are beginning to restructure and redefine our understanding of environmentalism . . . Grassroots activists of colo(u)r are demanding that this nation address many of the critical issues of our time, including housing, employment, public health and self-determination"(1993 : 51). The notion of "environmental justice", was also popularised by the October 1991 First National People of Colour Environmental Leadership Summit, where delegates adopted the "Principles of Environmental Justice"

Bullard (1993). Over 650 grassroots and national leaders from all 50 states, the District of Columbia, Puerto Rico, Mexico and the Marshall Islands attended the summit. Furthermore, delegates from people of colour comprised, environmental activists, civil rights advocates, trade unionist, farmworkers, scientists, environmental lawyers, and representatives from the philanthropic community (ibid).

The summit addressed three fundamental areas :

- the environmental and social crisis in general
- the particularly problematic forms of environmental pollution impacting on communities of colour, such as hazardous and solid waste, air pollution, radioactive waste, pesticide, and lead poisoning
- the historical experience and cultural perspectives of communities of colour in US regarding the environment.

Bullard (1993) notes that the summit served to shape an inclusive environmental agenda and also served to strengthen and empower grassroots leaders and build a broader multiracial environmental and social justice network. The idea of the US environmental justice movement anchoring its struggle within the broader struggle for political and social justice is particularly illuminating and relevant for the purposes of this study. Even though South Africa is presently in transition, nevertheless socio-economic legacy of apartheid's social engineering still persist. For instance the rate of unemployment among blacks is high at 66%, 7 million people live in squatter camp squalor, 23 million lack electricity, 10 million people lack drinking water at home and 15 million lack sanitation, Time International, April 25, 1994, No 17. It would therefore be important to examine how grassroots activists integrate environmental problems into their broader struggle for basic needs and how they in the first place define environment issues. In fact, Alexandra is a microcosm of the latter poignant situation described.

The issue of environmental racism and injustice and the challenge of the latter by an environmental justice movement in the USA provides illuminating and relevant lessons for South Africa, particularly the black communities as they have historically been the victims of pervasive racist policies. However, this study is not oblivious to the fact that significant social, cultural and political differences remain between both countries. Nevertheless, it is against this background that this study shall be conducted.

METHODOLOGY

This research has employed a case-study method, by looking at Alexandra township's socio-economic and indeed environmental degradation as an indication of the prevalence of environmental racism and injustice. Activists from different social movements and community leaders from Alexandra will also form an integral part of the case-study, with the primary aim of illustrating the emergence of a new environmental paradigm that takes social justice as a core component of environmentalism. Furthermore, these activists and community leaders have been incorporated in the case-study to display the extent of grassroots mobilisation with regard to a quest for environmental justice and general social justice.

Alexandra township has been chosen as a case-study due to both logistical and epistemological considerations. Proximity of Alexandra was one of the major factors that influenced my decision to choose it as a geographical area of focus for this study. Linked to the latter point is the fact that, therefore because of its closeness transport expenses have been affordable. This is a crucial consideration as there are serious financial constraints with regard to undertaking a research project.

As far as epistemological considerations are concerned, Alexandra in many respects represents a classical case of environmental degradation coupled with serious socio-economic problems such as a high rate of unemployment, overcrowding, lack of housing, lack of land and a severe shortage of provision of basic services such as refuse removal,

sanitation and stormwater drainage. Furthermore, one of the advantages of the case-study method is the flexibility it allows in choosing methods of data collection, (Rose, 1991).

Interviews

Semi-structured, in-depth interviews have been employed as the main methodology of this research. "Semi-structured", in the sense that one part of the interview is structured, comprising personal and biographical information for all the respondents. On the other hand, the other part of the interview is unstructured in the sense that a variety of informants involved in different aspects of the community, but with implications for and relevance to environmental issue, have been interviewed, and different issues covered.

Each interview had to take cognisance of the particular experience and involvement of the informant and thus questions had to be tailored to be of relevance to such involvement. In other words, an interview with a refuse-removal collector could not entail exactly identical questions as an interview with an activist from a civic organisation.

McNeill (1989 : 23), notes that "Interview schedules can fall anywhere on a scale from the completely structured to the completely unstructured, and many include questions of several types within the same schedule." Hence the interview method has been described as adaptable and flexible, Bell (1987). Furthermore, they provide "greater depth", Fontana and Frey (1994 : 365) and they can "produce a wealth of data", Bell (1987 : 72). Indeed, the interview method has enabled me to fathom and probe especially respondents who are still and used to be involved in community struggles and broader politics, about their past involvement and to see how their past experience could possibly shape their activism particularly with regard to environmental justice and broader social justice.

• Sampling

The sampling method employed in this research has largely fallen within the framework of non-probability sampling. This sampling method includes any method in which the elements or the population have unequal chances of being selected, Dooley (1995).

However, purposive sampling has been the main and the specific type of non-probability sampling method chosen for this study. This type of sampling basically refers to when, "a researcher chooses a particular group / place to study because it is known to be of the type that is wanted" McNeill (1989 : 89). Indeed in the case of this study particular respondents have been deliberately chosen because of certain characteristics and thus their relevance to the study.

A total of ten respondents with differing involvement in the community and the environment in general were chosen using the purposive sampling method. They are the following :

- South African Communist Party (SACP), Alexandra - General Secretary:

This respondent from the SACP Alexandra branch was chosen because of his long history of political activism particularly in Alexandra. Furthermore, it was important to fathom how SACP at local level integrates the notion of environmental justice into the broader notion of social justice. After all the principles of the SACP are aimed at the poorest sectors of the community, including the workers. The SACP national is a co-author of the IDRC's "Environment Reconstruction and Development in the New South Africa", policy report.

- African National Congress (ANC), Alexandra - counsellor, North Eastern Metropolitan Sub-structure (MSS):

The respondent was chosen because of his long history of political involvement and general community struggles in Alexandra. Equally important is the fact that the Alexandra is considered to be one of ANC's strongholds.

- Alexandra Property and Housing Association (ALPHOA):

The chair person of this civic association in Alexandra was also chosen because of his long involvement in community issues and struggles, particularly struggles around land and housing. This dimension is particularly relevant for the study as one could see how such issues are integrated in the broader issues of the living environment.

- Alexandra Refuse Removal contractor (has also just been elected as a ward representative in Alexandra during the recent local government elections):

He was chosen because of his involvement in the refuse removal business he could give a more informed insight with regard to waste problems and other environmental problems in Alexandra. Furthermore he also has a long history of community involvement in Alexandra.

- Alexandra Environment Protection Group - co-founder:

Naturally, such a person is directly relevant to this study as Alexandra Environmental Protection Group is an example of a grassroots environmental group inspite of the fact that it is still experiencing difficulties with regard to becoming a fully-fledged, operational organisation. It was therefore important to fathom how a grassroots environmental group conceptualises environmentalism given the socio-economic and cultural context within which it emerges from. Furthermore, as a co-founder, the respondent has a long history of community involvement in Alexandra.

- Alexandra Community Radio Station - environment and health presenter:

It was relevant to interview a respondent from this new community radio station, because community radio station are bound to form a core nucleus of the community socio-economic, political and cultural fibre and discourse. It was therefore important to fathom how environmental issues are disseminated to the community.

Expert respondents : These are those respondents from environmental research and lobby organisations.

- Group for Environmental Monitoring (GEM) - Waste Project Co-ordinator:

This respondent was chosen to give an expert opinion on waste and general environmental issues and to fathom this organisation's discourse and approach to environmentalism. This respondent was chosen precisely from this organisation because of its extensive community involvement.

- GEM - Community Outreach Programme Co-ordinator:

This respondent was particularly relevant to illustrate how GEM as primarily a research organisation engages disadvantaged communities in environmental issues and how in the process it empowers them so as to enable them to make informed interventions and participation in environmental issues, particularly environmental justice.

- Environmental Justice Networking Forum (EJNF) - Gauteng Co-ordinator:

This respondent was chosen primarily because of EJNF's strong advocacy for environmental justice as a core component of environmentalism. Furthermore, according to literature research conducted for this study EJNF appears to be a formidable player with regard to issues pertaining to the environment.

In addition to the primary data collection of documentary and interview material, this research has also extensively employed secondary data. However this research project has not been oblivious to the shortcomings of the research strategies employed. This study was sensitive to the fact that completely unstructured interviews might lead to a situation whereby central questions and themes are not addressed. Bell (1987), notes that bias is one of the common shortcomings with regard to interviews. In fact Bell notes that the danger of bias is always there. For instance, asking leading questions because of the interviewer's strong feelings about the subject. Given the almost inevitability of bias associated with this strategy, it is clear that it is difficult to eliminate it completely, however, the only assure that can be given with regard to this study is that every effort was made to avoid the likelihood of biases by being and objective as possible.

In addition to interviews and the study of primary and secondary sources, this research also utilised participant observation, by attending workshops (see p.55), around the issues that this study is addressing

CHAPTER TWO: ENVIRONMENTAL RACISM AND INJUSTICE IN SOUTH AFRICA

The previous introductory chapter has introduced the concept of environmental racism and injustice largely in the context of the United States and to a lesser extent also alluded to the South African scenario. It is however the primary preoccupation of this chapter to focus on the concept of environmental racism and injustice in the South African context.

As already mentioned, South Africa, like the US has a history of racism and injustice which pervades almost all spheres of life, although in both countries institutional racism and injustice have been abolished. Posel (1994), argues that the Nationalist Party government built Apartheid into a monstrously labyrinthine system which dominated every facet of life in South Africa. In the US such forms of discrimination were abolished over three decades ago, and in South Africa this has been done with the enactment of the new post-April 1994 interim constitution. In fact it is argued that South Africa's constitution has some unprecedented aspects in so far as fundamental human rights are concerned. For instance, gay and lesbian rights are constitutionally entrenched. As such the SA constitution is very emphatic and stringent as far as discrimination and injustice. Chapter three of the interim constitution states:

"8. (1) Every person shall have the right to equality before the law and to equal protection of the law.

(2) No persons shall be unfairly discriminated against, directly or indirectly, and, without derogatory from the generality of this provision, on one or more of the following grounds in particular: race, gender, sex, ethnic, or social origin, colour, sexual orientation, age, disability, religion, conscience, belief, culture or language" Government Gazette, (28/01/1993).

In spite of the constitutional guarantees against different forms of discrimination and injustice, it is clear that the legacy of such forms of discrimination, injustices and inequalities

are still prevalent and entrenched, as a result of decades of their implementation and practice. Africans, in particular, have disproportionately borne the brunt of such injustices. In following the logic of Posel (1994)'s contention that apartheid was pervasive in every fact of SA life, this study contends that racism and injustice, the central defining features of apartheid and segregation, manifested and still manifests itself in the sphere of the environment as well. Hence the concept environmental racism and injustice.

In the SA context the latter manifests itself in the reality that blacks, particularly Africans, have disproportionately borne the brunt of environmental degradation, ill-health and mismanagement.

Apartheid social engineering and planning

- Rural areas

It is imperative to anchor any analysis of environmental racism and injustice in the context of apartheid social engineering and planning, particularly with regard to the Africans. Posel (1994) notes that the central tenant of apartheid (particularly the "total segregationist" school of thought, which was dominant during the height of Afrikaner nationalism in the 1940's, 1950's and 1960's), was white supremacy - politically, socially and otherwise - thus creating a "white" and a "black" SA. The latter objectives were engendered through various legislations and policies. For instance the 1913 Land Act, the 1926 Native Trust and Act, the 1950 Group Areas Act and various influx control policies and pass laws.

The latter policies had far-reaching social and environmental implications for those regions designated as reserves and "homelands" and for their inhabitants of which the majority comprised Africans. Several publications have highlighted the fact that apartheid planning and policies in the latter areas have had detrimental environmental, health and social effects, ANC (1994), IDRC report (1994), Koch et al (1994). "Homelands", comprised a mere

13 % of the SA's surface territory, yet are occupied by more than one-third of the country's population of 35 million, Koch (1994). On the other hand, approximately 97 % of land is was, and still is, owned by a small white minority. Landlessness, and the resulting overcrowding and overgrazing, as well as inappropriate farming methods on commercial farms, have given rise to severe land degradation and soil erosion. Around 67 % of the total costs associated with soil degradation are as result of erosion. South Africa has lost some 400 million tons of top-soil each year for the last decade, IDRC report (1994). As result the IDRC report contends that the land question is at the heart of most ecological problems experienced in the bantustans. For instance, in Qwaqwa it is reported that population density approaches 300 per square kilometre. In contrast, the former Cape Province and the Transvaal the population density in the rural areas is between 2 and 11 per square kilometre.

Furthermore, Koch et al (1994), notes that land congestion increases from an average of four hectares per person in the Transkei to one-fifth hectare per person in Kwa Ndebele. Kwa Ndebele is virtually an edge-to-edge slum, so are reaches of Kwa Zulu, Ka Ngwane, Transkei and Ciskei. Bophuthatswana and Lebowa, although the least densely populated, are the driest (all afore mentioned areas are former "homelands"). Koch et al vividly captures this apartheid engineering that has been described, Borders between "white" farmland and "homeland" territory are usually starkly defined by the abrupt change from lush pastures to tracts of overgrazed, eroded and barren land between densely settled villages and endless dormitory townships" (1994 : 7).

The IDRC report further illustrates the poignant repercussions of apartheid social engineering on the environment and people's health. South Africa has lost some 400 million tons of top-soil each year for the last decade. However, the situation in the former homelands is more serious since they are characterised by poor land, politically enforced overpopulation (by 1985 it was at about 14 million people in 13 % of the country), and poverty. It was largely by political design, in the creation of bantustans, that blacks were generally given land that had poor soil quality with low and erratic rainfall. Compared to

major areas like Natal and the Cape, five of the home homelands registered population densities of 0.1 arable hectares / person, whereas in the latter it averaged 2.5 hectares / person. Furthermore, the IDRC report notes that because soil erosion is a common feature of former homelands and given the limited amount of land at the disposal of the people in the homelands soil erosion clearly robs the people of more useful land. In addition to the latter problems, inadequate investment in water supply and sanitation in the homelands has led to reliance on polluted water in the rivers. This problem is responsible to a certain extent for the high incidents of illnesses in the rural areas of the homelands. During droughts, the former homelands suffer more from acute shortage of water than in other parts of the country, (ibid).

Although this research's focus is based on an urban township case study of Alexandra, the above paragraphs though depicting a rural scenario nevertheless, clearly demonstrate how apartheid social engineering through the "homelands" policies and its concomitant problems of overpopulation and landlessness, have led to environmental degradation and ill-health. However, clearly absent from most of the literature investigating the adverse effects of apartheid on the environment, is a specific analytical examination of the racial and social dimension of environmental degradation and ill-health.

Nevertheless, the latter observation does not imply that the concept of environmental racism and injustice is precluded from being employed in afore described situations of the "homelands". The concept of environmental racism and injustice is indeed applicable as the vast majority of the population of former homelands are Africans.

• Urban Areas

Also indicative of apartheid social engineering and planning is South Africa's "white" urban landscape. Furthermore, the latter apartheid urban planning has also given rise to environmental racism. That is, black's residential areas' planning has been underpinned by apartheid's racist dogma. These residential areas were not provided with enough basic

services and infrastructure like those provided to white residential areas. Literature echoing the latter sentiments is abound. South African cities, are a particular heritage of apartheid which created dualism, IDRC (1994). Mabin (1992), notes that the doctrine of apartheid has been inextricably bound up with urbanisation. In fact, Mabin employs the concept of "urban apartheid" to broadly capture residential segregation, buffer zones between races, peripheralization of the black population and long dislocation between residence and workplace.

IDRC et al (1994), argues that as a result of apartheid planning and urbanisation, black communities are not serviced adequately in terms of basic services, lack of housing and basic services such as water and sanitation, distorted land-use patterns, massive economic and environmental costs, social inequalities, and public sector inefficiencies.

The administrative structure of South African cities has been in many respects the pillar of "urban apartheid". Smith (1992), notes that the administrative structure of South African cities reveals a complexity befitting the divided society of apartheid. This racist development and administration of black townships can be traced to the Native Urban Areas Act of 1923, which set aside separate areas (townships) for occupation by African people. The Group Areas Act of 1950 complemented this by creating separate group areas for whites, Indians and "coloureds". Accordingly, all local authorities were racially based. For instance, the passing of the Black Local Authorities Act in 1982 created a fully-fledged local authority system for African areas. On the other hand, Indian and "coloured" had advisory management committee systems, which effectively fell under the political and administrative responsibility of White Local Authorities (WLA), PLANACT (1995).

Invariably, Black Local Authorities were financially incapacitated to ensure apartheid urbanisation. Local authority boundaries were demarcated in such a way that major industrial, mining and commercial centres were excluded from the jurisdiction of Black Local Authorities, (ibid). This financial unviability of the Black Local Authorities exacerbated its inability to provide basic infrastructure and services.

Rapid increase in informal settlements, "squatter camps" or shacks, as the phenomenon is interchangeably known, is also a consequence of apartheid planning and urbanisation with adverse environmental implications. This adverse environmental degradation is in turn indicative of environmental racism and injustice. Furthermore, in the Gauteng province, there were some 635, 000 informal dwellings accommodating over 2.5 million people in 1989, Smith (1992). Alexandra, the case-study of this research, illustrates another dimension, that is uncontrolled densification that has occurred through backyard shack development. It has up to 160 accommodation units, primarily shacks, per hectare, IDRC (1994).

The phenomenon of rapid increase of informal settlements must however, be seen in the broader context of urbanisation in South Africa. According to the IDRC et al, South African cities are growing at an enormous rate of the order of 3 - 5 % per annum. Furthermore, the number of people living in cities in South Africa is expected to grow from around 11 million in 1990 to 23.6 million in 2010. Of these, 13.4 million will be living in Gauteng.

Implications for the environment and in particular for environmental racism and injustice

The central preoccupation of this chapter is to demonstrate that apartheid generally and urban planning specifically is central to explaining environmental racism and injustice in South Africa. In fact, environmental racism and injustice are not only a consequence or an extension of the former, but they are an inherent feature of apartheid urban planning.

The 1987 United Church of Christ's Commission for Racial Justice's study demonstrated the existence of environmental racism and injustice by illustrating how toxic waste is dumped near poor minority communities, in particular African-Americans. However, this study contends that in South Africa, environmental racism and injustice do not only manifest themselves through dumping of wastes, especially toxic waste near African communities. The way urban planning and urbanisation was conceptualised and

implemented with regard to blacks, especially Africans, laid the basis for environmental racism and injustice.

White supremacist ideals which underpinned the Nationalist government's urbanisation policy, particularly the so-called "orderly urbanisation" as crystallised in the 1986 White Paper on Urbanisation, wanted to limit African urbanisation as far as possible. The corollary was that, even when and where urbanisation was allowed proper planning, inadequate infrastructure and basic services were the result, thus keeping in line with apartheid principles. For instance, basic services like the provision of proper houses and enough land were lacking.

IDRC et al reiterates the latter point, "Apartheid urban planning allowed different standards for services according to race, allowing for the provision of inferior services in black areas" (1994 : 59). Such a situation has far-reaching repercussions for the living environment and the health of the communities.

Landlessness and overcrowding

Inadequate land, for instance has lead to a severe lack of green spaces, resulting in a lack of recreation areas, as well as a shortage of vegetation to perform environmental "services" such as filtering air and water, and providing habitats for birds and insects, (ibid). The latter situation has other far-reaching environmental and social, health consequences with negative effects on communities.

For instance due to lack of such green spaces, which also could used as playing parks for children, they end up playing in dumps, which are in fact commonplace in black townships. This could be dangerous for children as there is often toxic substances, even those that are used domestically. For instance, chemical products such as pesticides, medical drugs, paint solvents and batteries are toxic substances that abound in domestic waste. In fact stories vindicating the latter contention have been documented in the media to an extent. The Sunday Times (5 December 1993) reported a story of a doctor in

Katlehong, an East Rand township who dumped hazardous waste comprising medical waste such as, needles, painkillers, syringes, anti-biotics, fungicides, cough mixtures, and tablets. Anti-biotics and fungicides are a serious health risk if taken by people without infections or are sensitive to the drug's side effects. They reduce the body's ability to fight disease and often have toxic effects, (ibid). The problem of irresponsible dumping of toxic medical waste near communities is in fact more wide spread than this isolated incident. A mere 40% of registered medical and dental practitioners and practices are using proper procedure of disposal, (ibid).

Inadequate land is one of the most pressing socio-economic and indeed environmental problems in Alexandra. In fact, one the major civic organisations in Alex, Alexandra Land and Property Owners' Association (ALPOA), contends that Alex can not be environmentally sustainable unless enough land is provided together with basic services like enough toilets, stormwater drains and proper sanitation, among others. Lack of enough land and thus overcrowding can and has led environmental degradation and concomitant health problems. For instance, shacks have been built in unsuitable areas such as river valleys which are vulnerable to flooding, or on prime agricultural land. Alexandra, is also a point in case as there are many shacks built on the bank of the Juskei river.

Many black townships have untarred roads which, combined with inadequate storm water and drainage services, lead to soil erosion and its attendant problems. The build-up of uncollected waste results in floods, and channelling of water, which increases the erosion of roads and soil, IDRC et al. Furthermore, construction methods used by developers in low cost housing projects have further added to land degradation. Often an area of land zoned for low cost housing is cleared of all vegetation and graded flat, before construction begins. This results in a loss of top soil, and an increase in erosion. It also creates an inhospitable and unhealthy environment for residents, with increased levels of dust in the air, (ibid).

Overcrowding which could also be attributed to lack of availability of enough land, has

far-reaching environmental and health repercussions. As already noted, people end up erecting shacks on unsuitable land coupled with a lack of access to safe water, proper sewerage and refuse removal. Overcrowding encourages the spread of airborne infections, the more serious of which are tuberculosis, pneumonia, and measles. Pneumonia is the second most prevalent cause of child death in the world, while measles is the third, Lawson (1991). Furthermore, overcrowding also puts a strain on basic services thus leading to a collapse of these essential activities. Therefore, the strain on the carrying capacity - that is the maximum population that can be supported indefinitely in a given habitat without permanently impairing the productivity of the ecosystem upon which that population is dependent, has further environmental and health implications, White and Whitney (1992). For instance, if water and sewerage systems break down, illnesses such as diarrhoea, dysentery, worm infestations and a wide range of eye and skin infections. Water shortages also create the risk of outbreaks of infectious diseases like poliomyelitis and typhoid, Lawson (1992). Excreta-related infections are caused by inadequate sanitation systems, such as the bucket system - which used to be a dominant system in Alex - or by leaking waterborne sewerage. These illnesses include beef and tapeworm infestations as well as diseases carried by flies, (ibid).

Air Pollution

Significant amounts of air pollution in African townships is also indicative of the inadequate availability of basic services like electricity. This in turn is due to apartheid planning and urbanisation discourse. Lack of electricity has encouraged communities to use coal and wood as domestic fuel. However, industrial processes and automobiles are also important sources of air pollution. The areas of worst air pollution in South Africa include: Merebank (Durban), Cape Town, the Vaal Triangle, Soweto and other African townships in Gauteng. However, air pollution inside homes is just as health-threatening as air pollution that occurs outside homes, like fossil-fuel vehicles poses a particular health risk since petrol contains high levels of lead.

With regard to air pollution that occurs inside homes, at least one million people rely on coal for cooking and heating and are potentially at risk from high levels of indoor pollution. Recent studies have found exposures to particulate matter to be several times higher than health guidelines allow. This exposure has been directly associated with a high incidence of respiratory illness, which is the second highest cause of infant mortality in South Africa, IDRC (1994). Furthermore, air pollution monitoring and control efforts in South Africa have not, to date, been focused on personal exposures, even though this is the most accurate indicator of risks to public health. Moreover, many local authorities do not have the technical capacity for air pollution monitoring within their areas, (ibid).

Waste disposal

The waste problem in the townships is also a manifestation of apartheid-influenced planning which invariably provides poor standards of services. Infrastructure for the facilitation of waste disposal facilities is very inadequate and inconsistent. This has led to a situation where residents dispose of waste in any available piece of unused land and even on street corners. In fact the latter described situation is commonplace in Alex. Lawson (1992) notes that some streets in Alex are boarded by garbage piles three metres high. Children are not the only ones who end up being affected by playing in these uncontrolled sites of waste. Adults, especially women often scavenge these dumps. Refuse-related diseases include diseases carried by flies and rats, as well as rat bites, poisoning and injuries, (ibid).

Illegal dumping of waste, especially hazardous waste, by industrialists and other entrepreneurs also exacerbates the problem of waste and its concomitant health hazards. Most of the respondents in the study noted that the Jusei river is often inundated with hazardous waste from nearby industries and white suburbs. Industries and nearby white residents also dump in open spaces near the Alex community. Moreover, industries located near townships were often responsible for toxic effluent and emissions, extending the burdens of water and air pollution, Group for Environmental Monitoring (GEM) (1994). The Star (February, 6, 1992), reported an incident of illegal and dangerous dumping in Alex by a truck believed to come from Wynberg industrial area. Fifteen children received

medical treatment after they suffered serious chemical burns due to a substance called Xylol. The report further highlighted the dangerous nature of Xylol. It could penetrate soft tissue, cause respiratory failure and lead to cancer and toxic dementia, (ibid).

The siting of waste disposal sites has also been a vivid vindication of the practice of environmental racism and injustice. There is an increasing body of literature which has highlighted the siting of landfill sites next to poor communities which in most cases are African. Cock and Koch (1991), IDRC (1994), are some of the literature that have highlighted such a practice. Even lobby groups and non-governmental organisation have focused on the environmental racism and injustice dimension of this practice. For instance the Group for Environmental Monitoring, Environmental Justice Networking Forum (EJNF) and Earthlife are a case in point.

The rent boycotts which started in the 1980's have also contributed to the inability of local government to provide services such as refuse removal. Alex residents were also at the forefront of this campaign. However, the rent boycott campaign was in fact a political strategy by communities to register their dissatisfaction towards the low and sub-standard and in some cases unavailability of essential services like refuse collection. Furthermore, the campaign was also broadly aimed at exposing the illegitimacy of imposed Black Local Authorities.

This chapter was aimed at demonstrating that central to understanding environmental racism and injustice in South Africa, is the notion and practice of apartheid planning and urbanisation which sought to thwart any significant permanent settlement of Africans in the so-called "white" urban South Africa. Furthermore, the latter practice was inherently problematic with regard to the healthy living environment and health of these communities. As Lawson writes, "Throughout this century, a central concern of the ruling white government has been to prevent black urbanisation. The legacy of this policy - segregated, degraded, overcrowded black urban areas - is the core of the urban environmental crisis in South Africa today", (1991 : 47).

It has also been demonstrated how the denial, or the provision of poor standards, of essential services like electricity, sewerage, storm-water drainage systems, land space, sanitation and refuse collection and disposal facilities has led to in most cases communities and particularly children suffering from different diseases and other health problems.

Race, class and the environment

In South Africa, the relationship between race and class is inextricable. Whites have used their political power to engender their economic power. Furthermore, it could be argued that in turn economic power has been used to reinforce their political power. On the other hand, Africans have historically been disenfranchised, both in the economic and political sense. This has led to the latter group to experience large-scale forms of poverty. South Africa has the worst distribution of income across households. The poorest 40 % of households earn a mere 4 % of income while the richest 10 % earn in excess of half. Furthermore, almost three quarters of the country's population is black yet black households earn less than a quarter of total income and households which are most likely to be poor are black, (Whiteford 1995).

The main contention of this study is that because of the racist policies of past governments in which Africans have been the primary victims, it therefore follows logically that they have disproportionately borne the effects of environmental degradation and its concomitant health hazards. This is at the core of the notion of environmental racism and injustice. This contention however, does not preclude the suffering of other racial groupings as a result of adverse environmental degradation.

Other racial groups have also suffered from environmental degradation and have also faced possible environmental threats, especially those groups within the other different racial groups that are at the low end of the economic scale. For instance, the Chloorkop story of Wastotech wanting to erect a toxic landfill site next to the communities of Thokoza - and communities of the "white" residential area of Kenpton Park. Notwithstanding the latter case which introduces a class dimension with regard to environmental injustice, it still

should not serve to vindicate the primacy of class over race. Race and class in South Africa are inextricably linked, Posel (1983), Webster et al (1994). Whites have historically had the political power which in turn has facilitated and reinforced their economic power. On the other hand, Africans have been historically excluded from political power, and logically this has incapacitated Africans from economic empowerment. Invariably, Africans form a significant proportion of the poor class. Therefore, the poor communities who suffer the repercussions of environmental degradation are in essence and mainly African.

The manifestation of environmental racism and injustice in the sphere of labour is a classical illustration of the inextricable nature of race and class. Black workers, who through various racial policies (aptly captured by Webster et al 1994 as racial despotism), have been marginalised to lower ranks of the working class, and have been the prime victims of hazardous working conditions and substances, Luckey (1995). The Thor Chemicals story whereby a black worker died and others suffering serious diseases due to the toxic mercury material is a classical example of the latter point.

CHAPTER THREE: CHANGING ENVIRONMENTAL PARADIGMS IN SOUTH AFRICA

There is an indication of a newly emerging, but still embryonic environmental paradigm which challenges environmental racism and injustice. However, in order to understand and explain the new emerging trends, it is important to trace the traditional and historically dominant paradigm with regard to environmentalism in South Africa.

(1) The authoritarian conservation perspective.

Cock (1991) notes that until recently the dominant and traditional understanding of environmental issues in South Africa was an authoritarian conservation perspective. This perspective focused exclusively on the preservation of wilderness areas and particular species of plants and animals. As a result even practices of conservation showed negligible regard for affected communities during the execution and implementation of conservation projects. As Cock notes, in the past conservation projects often disregarded human rights and dignity (and social justice, my addition). For instance, the establishment of many game reserves meant social dislocation and "distress" for local people. For example, the establishment of Tembe Elephant Park, (near Kosi Bay) in 1993. The latter situation led to serious infringement of the right of the affected communities to social justice. The affected communities lost water rights, lost grazing and arable land and were dumped in resettlement area without adequate rudimentary infrastructure and services, (ibid).

As a result of such authoritarian conservation practices, affected communities and Africans in general are alienated and have perceived environmental issues as misanthropic and as white middle-class issues. Cock, quotes from The Weekly Mail, 6 October 1989, a rural fieldworker noting that, "If conservation means losing water rights, losing grazing and arable land and being dumped in a resettlement area without even the most rudimentary infrastructure and services, . . . this can only promote a vigorous anti-conservation ideology and the rural communities of South Africa" (1991 : 2).

The *modus operandi* of mainstream environmental organisations has also reinforced the dominance authoritarian conservative paradigm. For instance, African Wildlife Vol. 48, No. 3, states that "The Wildlife Society and other mainstream NGO's have traditionally focused on conservation of the natural environment . . ." (7 : 31). Authoritarian conservation practices have also manifested through and been buttressed by the authoritarian apartheid regime. Repressive policies of the apartheid state, especially towards Africans have thwarted the emergence of a vibrant and dynamic civil society within which social movements with a multifaceted agenda - including a focus on environmental issues could play a role. Furthermore, at local government level, most of the structures were apartheid-imposed structures with a top-down approach to development and management issues. Sugrue (1994), furthermore notes that, "The apartheid era was characterised by an authoritarian approach to problem solving of waste management issues. It was accepted that the "experts" knew best. What was omitted in this strategy was the understanding that the people who live within an environment know far more than any expert living outside that environment . . . Waste management companies and governments together have decided on landfill siting, permitting and monitoring." (Sugrue, 1994 : 1 - 2).

The authoritarian conservation approach meant the perpetuation of environmental racism and injustice. By precluding social justice, and thus basic issues such as access to drinking water, land for grazing and settlement, it is by omission and invariably a form of environmental racism and injustice. Most of the victims of such authoritarian practices were and are primarily poor African communities.

(2) The new emerging progressive and social justice perspective

Although to some extent the conservation perspective which precludes social justice issues still persists, there is however, a new progressive perspective which is holistic and as such encompasses social justice. As already indicated this perspective is not a uniquely South African phenomenon, it is a global trend.

In fact, the two perspectives in South Africa are reflective of the global trend. Eckersley

(1992), notes that the environment crisis and popular environment concern have prompted a considerable transformation in Western politics over the last three decades. This has culminated in the development of new political cleavages, the formation of Green political parties. He terms environmentally motivated politics as "ecopolitics". However within the broader sphere of ecopolitics or Green politics there are two broad categorisations - the anthropocentrism and ecocentrism. These two ecological orientations, however, merely represent the opposing poles of a wide spectrum of differing orientations toward nature, (ibid).

(3) The anthropocentric perspective

The anthropocentric perspective adopts a narrow perspective towards the ecology. Eckersley (1992), notes that this perspective is characterised by its concern to articulate an ecopolitical theory that offers new opportunities for *human* emancipation and fulfilment in an ecologically sustainable society. Therefore, the latter approach represents a human-centred orientation toward the nonhuman world with an ecology-centred orientation. Furthermore, the nonhuman world is reduced to a store house of resources and is considered to have instrumental value only, that is, it is valuable only insofar as it can serve as an instrument, or as means, to human ends.

Even though this perspective does not fit a comparison with the conservation perspective with regard to the South African situation, however, its reductionism and narrow approach does to some certain extent provide parallels.

(3) From anthropocentrism to ecocentrism

This spectrum, notes Eckersley (1992), represents a general movement from an economic and instrumental environmental ethic towards a comprehensive and holistic environmental ethic that is able to accommodate human survival and welfare needs while at the same time respecting the integrity of other forms of life. As noted earlier, within the broad ecocentric approach, there is a wide spectrum of orientations. In fact, most of these streams fall between the two poles: anthropocentrism and ecocentrism, (ibid).

(4) Preservationism

This orientation in many respects parallels the conservation and somewhat anthropic environmentalism in South Africa. The essence of the preservationist stream may be described as reverence, in the sense of aesthetic and spiritual appreciation of wilderness, i.e., nonhuman nature that has not, or only marginally, been domesticated by humans.

(Eckersley 1992). This approach has its origins in the latter half of the nineteenth century, the most significant milestone being the designation of over two million acres of north-western Wyoming as Yellowstone National Park in 1872, (ibid). Furthermore, Eckersley notes that whereas wilderness was once feared by the early European colonists in New World regions such as Australia and North America as hostile force to be tamed, to an increasing number of Westerners wilderness has become, for a complex number of reasons, a subject of reverence, enlightenment, and a locus of threatened values.

The preservation stream provides further relevant comparison to the South African situation, as historically there have been links between the white population of the country and Europe and recently North America. It could be interesting to understand how the overseas influences could have influenced the white South African population.

It is also interesting to note that some of the major criticism advanced against the conservation approach in this study with regard to South Africa, are also advanced by Eckersley. He notes, "...from an ecological point of view, it is self-defeating to focus exclusively on setting aside pockets of pristine wilderness while ignoring the growing problems of overpopulation and pollution, since these problems will sooner or later upon the remaining fragments of wild nature" (1992: 41). With regard to the South African situation, one can discern a different dimension of the practice of European and other overseas preservationists. In South Africa preservation/conservation of the wilderness has been practised as the expense of social justice. It has led to communities being forcefully removed and thus precipitating other related hardships such as losing land for grazing and settlement, losing access to water and suffering from general social dislocation.

Furthermore, such an authoritarian conservation / preservation approach invariably had a distinct racial dimension as most of the victims of such practices were Africans.

(5) Animal Liberation

The animal liberation perspective resembles the preservation / conservation approach. The essence of this stream as articulated by one of its advocates is the moral principle of equal consideration (as distinct from treatment) of the interests of all sentient beings regardless of what kind of species they are. The criterion of sentience is pivotal. For example, Ekersely notes that "capacity for suffering and enjoyment is a prerequisite for having interests at all, a condition that must be satisfied before we can speak of interests in a (morally) meaningful way", Ekersely (1992: 43). Accordingly and in practice advocates of such a perspective engage in issues like the prohibition of the hunting and slaughtering of all sentient beings (vegetarianism being a corollary), the prohibition of vivisection, and the prohibition of "factory farming". Linked to the latter is also the protection of the habitat of wild animals, fish, birds, forests, wetlands as they are instrumentally valuable to sentient beings for their comfort and well-being in providing nesting sites, breeding habitat, and sustenance, (ibid).

This perspective is problematic, particularly with regard to social justice in South Africa. One of the general criticisms is that this approach is atomistic and therefore unsuitable for dealing with the complexities of environmental problems, which demand an understanding and recognition of not only whole species but also the interrelationships between different natural cycles, systems, and populations, (Ekersely, 1992). Ekersely also argues that there is tension between Singerian justice and an ecological perspective by noting that animal liberation, when drawn to its logical conclusion, would be obliged to convert all nonhuman animal carnivores to vegetarians, or, at the very least, replace predation in the food chain with some kind of "humane" alternative that protects, or at least minimises the suffering of sentient prey.

As far as the South African situation is concerned this approach is problematic as it precludes concerns for the political liberation of the majority of the people, especially before

the inauguration of a democratic government. However, the attainment of political liberation still does not necessarily vindicate this narrow and politically devoid perspective. This is because forms of injustice and human suffering still persist and the inauguration of democracy does not automatically and necessarily spell a death knell of social injustices and inequities. African, are still hard-hit by such problem due to apartheid legacies. Therefore, precluding such concerns from the environmental agenda is morally and politically inappropriate especially in the socio-political context of South Africa. In South Africa, it could be argued that the perception that used be predominant especially amongst Africans, that viewed environmentalism as misanthropic and therefore anti or indifferent to the political liberation of blacks could be attributed to this perspective. Even the perception that environmental issues are white middle-class issues could also be partly attributed to the animal liberation perspective.

(6) The Human Welfare Ecology

The human welfare ecology represents a clear shift from the previous streams as it has a holistic conceptualisation of ecopolitics. The essence of this stream is that it is concerned with the health, health safety and general amenity of the urban and agricultural environments, a concern encapsulated in the term "environmental quality", (Ekersely : 1992). This stream witnessed a considerable growth in the 1960's in Europe and North America. Although, this stream was initially and primarily emphatic on the demands for a safer and more agreeable work environment through the labour movement, however in the late twentieth century bearers of this human welfare stream have increasingly been citizens, consumers, and "householders" concerned with the state of the residential and urban environment, (ibid).

The rise of this perspective could be attributed to the rapid escalation in urban and agricultural environmental problems since World War Two as the emergence of "post-material" values borne by the so-called New Middle Class. The accumulation of toxic chemicals or "intractable wastes"; the intensification of ground, air, and water pollution generally; the growth in urban and coastal high rise development; the dangers of nuclear

plants and nuclear wastes; the growth in the nuclear arsenal; and the problem of global warming and the thinning of the ozone layer have posed increasing threats to human survival and well-being, (ibid). Furthermore, because of this stream's focus on the latter issues, the cities and their hinterlands have provided the major locale and focus of political agitation for human welfare ecology activists, since it is in urban areas that the greatest concentration of population, pollution, industrial and occupational hazards, traffic, dangerous technologies and hazardous wastes occur.

As opposed to the previous streams, this stream emphasises social aspects of environmental degradation. As such it accommodates concerns for human health, welfare and social justice. As a result, Ekersely notes that the Human Welfare Ecology provides an important challenge to the narrow, economic focus of resource conservationists. In other words, the resource conservation stream may be seen as primarily concerned with the waste and depletion of natural resources whereas the human welfare ecology stream may be seen as primarily concerned with the general degradation, or overall state of health and resilience, of the physical and social environment. Ekersely notes, "For the human welfare ecology stream, then, 'sustainable development' means not merely sustaining the natural resource base for human production but also sustaining biological support systems for human for human reproduction. Moreover, by focusing on both the physical and social limits to growth, the human welfare ecology stream has done much to draw attention to those "soft variables" neglected by the resource conservation perspective, such as the health, amenity, recreational, and psychological needs of human communities"(1992 : 37).

As far as the South African scenario is concerned there is some resemblance between this approach and the progressive approach outlined by Cock (1991). Indeed the human welfare approach by integrating social considerations like human health and environmental concerns provides a holistic approach and thus addresses the notion of social justice. This approach is relevant as far as the socio-political context of South Africa is concerned. In fact, it has been revealed during interviews with key informants that environmental concerns can not be addressed exclusively and at the expense of social problems such as unemployment, lack

of housing and land, overcrowding. The latter issues are integral to the conceptualisation of environmentalism and indeed sustainable development.

(7) Ecocentrism

The ecocentric stream though linked to the human welfare approach, is nevertheless more wide-ranging and builds on the insights of the other streams of environmentalism. This stream is more encompassing than others in that it :

(1) recognises the full range of human interests in the nonhuman world, goes beyond the resource conservation and human welfare ecology perspectives;

(2) recognises the interests of the nonhuman community, yet goes beyond the preservationist perspective;

(3) recognises the interests of future generations of humans and nonhumans; and

(4) adopts a holistic rather than an atomistic approach (contra the animal liberation perspective) insofar as it values populations, species, ecosystems, and the ecosphere as well as individual organisms.

Furthermore, Ekersely (1992) notes that ecocentric theorists are concerned to develop an ecologically informed approach that is able to value not just individual living organisms but also ecological entities at different levels of aggregation, such as populations, species, ecosystems, and the ecosphere.

Like the human welfare perspective the ecocentric stream exhibits a more valid approach to environmentalism. This perspective is not reductionist and exclusive, it conceptualises environmentalism as a holistic notion, encompassing both human and nonhuman interests. This falls in line with the notion of sustainable development. Indeed for South Africa, this approach has validity and relevance in many respects. This is more true when taking into

consideration the national preoccupation and the need for reconstruction and development with the ultimate objective of providing a better life for all. There is a link between environment and development, and development priorities must be rooted in environmental policy if they are to be sustained in the medium to long term.

Linked to the relevance of a broader approach to environmentalism encompassing the broader living environment is the notion of the "brown" issues of the environment. This notion is gaining ground in South Africa. The "brown" issues of the environment are issues that go beyond the confines of traditional environmental discourse especially in South Africa. These issues could impact on and could also in turn be impacted on by the environment, and thus they are not exclusive to the conservation of biodiversity. "Brown" issues thus include a wide range of issues such as building sustainable cities, water resource management, waste control and disposal, provision of housing, among others (African Wildlife 1994, Vol 48, No. 3). Furthermore, the "brown" issues of, housing, electricity, water, sewerage and refuse removal are dubbed as South Africa's new "big five", joining the traditional "big five" - lion, elephant, rhino and buffalo - of conservation (ibid).

Even though it does not seem that there is a distinct theoretical orientation in South Africa that informs the emerging holistic environmental discourse which emphasises social justice, however, from the above, it does seem however that there is a clear paradigmatic shift that is occurring and is oriented towards social justice as an integral part of environmentalism. This emerging trend is also manifest in environmental activism in general and within organisations and a wide range of social movements. In fact grassroots participation and mobilisation of communities is central to ensuring that environmental justice is at the centre stage of the environment paradigm. The Minister of Water Affairs and Forestry, Kader Asmal, reiterated the later point, "I have a sense of a growing movement in South Africa. And it is rooted firmly in the needs and demands of the majority. I sense a growing awareness in disadvantaged communities of their environmental rights and the environmental neglect and abuse to which they have been subjected" (1994 : 7).

CHAPTER FOUR: SOCIAL MOVEMENTS AND EMERGING ENVIRONMENTAL ACTIVISM

Although this study is not about social movements *per se*, it is nonetheless vital to anchor our explanation of grassroots environmental mobilisation and activism in a theoretical framework regarding social movements. Most of the key informants in the study are from civic organisations and political organisations and their involvement spans to many years ago. Alexandra township has gained prominence for its rich history of struggle. This history spans from the 1940's bus boycotts, the 1980's era of rent-boycotts and general insurrection against apartheid and to the 1990's political faction violence just before the inauguration of the new government. It is therefore appropriate to understand and explain their activism, conscientisation and mobilisation around the struggle for a healthy living environment and social justice against their social movement involvement.

The Environmental Justice Networking Forum, Earthlife, Group for Environmental Monitoring and other groupings would also be used to demonstrate the emerging trend of socially conscious environmental groups and the underlying paradigmatic shifts that has informed these trends.

The Environmental Justice Networking Forum (EJNF) and other environmental movements

To a very large extent EJNF represents a paradigmatic shift as far as traditional and mainstream environmental discourse and praxis is concerned in South Africa. The inclusion of the term, "environmental justice" in its name is indicative of the emergent discourse.

EJNF aims to strengthen cross-sectoral solidarity on matters of environmental justice by :

- providing a range of networking support and informational assistance to community-based organisations, non-governmental organisations, trade unions, women's groupings, church groupings, and any other non-governmental sector of civil society with an

interest in promoting environmental justice and sustainable development in South Africa;

- assisting in co-ordinating, improving and strengthening the participation of all sectors of civil society in the national processes of reconstruction and development, with a particular emphasis on promoting sustainability and environmental justice; - connecting up local participants with the global network of people who share their concerns and aims;
- building the lobbying capacity of organisations concerned with environmental justice, locally, regionally, nationally and internationally.

EJNF was formally launched in 1994 November. However, its formal launch was only a culmination of a long process of consultation with and among a broad range of community-based organisations (CBO's), non-governmental organisations (NGO's), political organisations and other social movements in the broader civil society. This process started during September 1992, when a mandate for the establishment of EJNF was given by the representatives of over one hundred South African NGO's and CBO's attending the Earthlife Africa International Environmental Conference.

An Interim National Steering Committee was nominated by the conference plenary and mandated to implement a bottom-up consultative process of establishment. The following organisations were represented on the steering committee :

- Akanani Rural Development Association;
- African National Congress Environmental Desk;
- Border Environmental Network;
- Community Environmental Network;
- Earthlife Africa;
- Environmental Development Agency Trust;

- Environmental Monitoring Group;
- Institute For African Alternatives;
- Rural Education Forum;
- Merewent Residents Association;
- South African National Civic Organisation.

Since then EJNF's affiliation has grown substantially. It has been established that its membership is now over one hundred and eighty (180) organisations. ¹ The break down of organisations participating in EJNF is as follows:

- **NATIONAL MASS-BASED**

Congress of South African Students (COSAS), with a membership of 210 000;

South African National Civics Organisation (SANCO), with a membership of 300 CBO's;

National Union of Metalworkers of South Africa;

Transport and General Worker's Union

- **COMMUNITY-BASED ORGANISATIONS**

Alexandra Civic Association - Gauteng;

Asidown Youth Development Programme - Kwa-Zulu / Natal;

Amalgamated Environment Club - Mpumalanga;

¹ Information on EJNF was largely taken from its pamphlets and its published book, "Health Before Profits | An Access Guide To Trade Unions and Environmental Justice in South Africa".

Coalition Against the Chloroform Toxic Dump - Gauteng;

Concerned Nature Club - Kwa-Zulu / Natal;

Cwaru Youth Club - Eastern Cape;

Greater Edendale Environmental Network - Kwa-Zulu / Natal;

Grow Wise - Mpumalanga;

Hlanganani Forum - Northern Province;

Isipingo Environment Committee - Kwa-Zulu / Natal;

Joint Action Committee of Isipingo - Kwa-Zulu / Natal;

Koroletsi Community Project - Kwa-Zulu / Natal;

Maefele Employment Creation Committee - Northern Province;

Maefele Environment Protection Committee - Northern Province;

Mahlateng Civic Organisation - Northern Province;

Malumulele Zonal Development Forum - Northern Province;

Malopong Environment Committee - Northern Province;

Merebank Residents' Association - Kwa-Zulu / Natal;

Nompumelelo - Mpumalanga;

Progressive Farmers' Union - Eastern Cape;

• **EDUCATIONAL**

Environmental Education Association of Southern Africa;

Environmental Education and Resources Unit - Western Cape;

Centre for Adult and Continuing Education - Western Cape;

Centre for Cognitive Development - Western Cape;

Progressive Adult Basic Education Trust - Eastern Cape;

• **ENVIRONMENTAL ORGANISATIONS**

Abalimi Bezekhaya - Western Cape;

Earthlife Africa - Durban; East London; Johannesburg; Pietermaritzburg; Pretoria;

University of Cape Town;

Ecolink - Mpumalanga;

Environmental Centre for Coastal Areas - KwaZulu / Natal;

Environmental Monitoring Group - Western Cape;

Green Coalition - Western Cape;

Keep Durban Beautiful Association - Kwa-Zulu / Natal;

Keep Phoenix Beautiful - Kwa-Zulu / Natal;

Wildlife Society - Gauteng;

Wilderness Action Group - Kwa-Zulu / Natal;

• HOUSING AND COMMUNITY DEVELOPMENT

Botshabelo Community Development Trust - Free State;

Greater Warmbaths Development Forum - Northern Province;

Khuphuka Skills Training and Employment Programme - Kwa-Zulu / Natal;

Lima Uvune Project - Gauteng;

Northern Transvaal Regional Development Forum;

Sunstove Organisation - Gauteng;

• LEGAL

Legal Resources Centre - Durban, Kwa-Zulu / Natal;

• POLITICAL

South African Communist Party Environment Desk - Northern Province;

• **RELIGIOUS**

Dominican Sisters - Gauteng;

Rastafari Unity Movement Alliance - Gauteng;

Wilgespruit Fellowship Centre - Gauteng;

World Conference on Religion and Peace - Kwa-Zulu / Natal;

Young Men's Christian Association, Amanzimtoti - Kwa-Zulu / Natal;

• **RESEARCH**

Agricultural and Rural Development Research Institute - Eastern Cape;

Institute of Social and Economic Research, Rhodes University - Eastern Cape;

• **RURAL DEVELOPMENT**

Association for Rural Advancement - Kwa-Zulu / Natal;

Border Rural Committee - Eastern Cape;

Environmental and Development Agency Trust - Eastern Cape; Northern Province;
Gauteng;

Mpumalanga Rural Development Forum;

Health Services Development Unit - Mpumalanga;

Rural Support Services - Eastern Cape;

SEDINAFU - Northern Province;

TERRP - Northern Cape;

Gauteng Rural Action Committee;

• WOMEN

African National Congress Women's League - Free State;

Gender Advocacy Project - Western Cape;

Masikhule Nobunye Besizwe Development Programme - Kwa-Zulu / Natal;

The Grail - Gauteng;

Young Women's Network - Gauteng.

Though the above list of affiliates of EJNF is not complete, however, it is nevertheless indicative of EJNF's (and this study's) contention that environmental injustice is pervasive and thus affects almost all spheres of life in South Africa - including women, rural / farm workers and workers in general. Furthermore, the composition of the membership is also indicative of EJNF's contention that environmental degradation and its concomitant adverse health effects disproportionately affect the poorest sectors of the society.

EJNF defines environmental justice as, ² " Social transformation directed towards meeting the basic human needs and enhancing our quality of life - economic quality, health care, housing, human rights, environment protection, and democracy. In linking environment and social justice issues, the environment justice approach seeks to challenge the abuse of

² This definition was quoted from an EJNF pamphlet.

power which results in poor people having to suffer the effects of environmental damage due to the greed of others. This includes workers and communities exposed to dangerous chemical pollution and rural communities without firewood, grazing and water. In recognising that environment damage has the greatest impact upon poor people, EJNF seeks to ensure the right of those most affected to participate at all levels of environment decision-making. This definition is further buttressed and crystallised by some of the following principles of EJNF:

- Ecologically sustainable social order to promote the following set of values:
- Social justice;
- Ecologically sustainable development;
- Non-racism and non-sexism;
- People before profits;
- Democracy, Accountability and Transparency;
- Acting in the interests of the disadvantaged and aiming to build their voice; and
- Believing that together we are stronger than alone.

Chris Albertyn in EJNF publication succinctly encapsulates the EJNF's perspective:

"We in South Africa must avoid the trap of prioritising what the powers in the Northern industrial countries think is important. These are the comfortable environmental agendas of the North that steer clear of issues such as poverty and inequality. They emphasise ozone-depleting gases and try and avoid having to talk about the broader problems of excessive and unjust consumption patterns. . . . To avoid this trap, we must be clear that the

environment is not just areas of natural beauty but it is in fact the place where we are - the environment includes our workplace, home, hostel, town, village and city as well as areas of natural beauty. Thinking of the environment in these broad terms makes it clear that South Africa's high infant mortality rates, industrial accidents, road and mining accident deaths, violence and township pollution are all environmental issues" (1995 : 9).

The types of strategies and strategies activities the EJNF has engaged in are indeed indicative of its adherence to the above outlined principles. Even issues around which its campaigns are centred confirm its commitment to social justice and environmental justice particularly with regard to poor communities.

EJNF has even had campaigns at inter-continental level. For instance, not only has it been opposed to the importation of toxic waste to South Africa by international multinational corporations, but has fiercely opposed such imports to the whole of the African continent.

Lukey, describes the tendency of multinational corporations to export toxic waste to countries in the South as "toxic imperialism", he notes, "In the process of recolonising the earth, multinationals are now recognised as a major cause for the increasing environmental degradation and human exploitation in poor countries", (1995 : 4).

Organising for environmental justice

Continently EJNF has played a great role in influencing the ban on the importation of toxic waste to the South, particularly to Africa. In March 1989, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal was adopted. The Convention came into effect in May 1992. In May 1994 the Republic of South Africa became part of the Basel Convention in May 1994, Dept. Environmental Affairs and Tourism (1994). Initially the Convention did not have an outright ban on the export and import of hazardous waste. However, there was a subsequent decision prohibiting with immediate effect transboundary movement of hazardous wastes for final disposal from OECD to non-OECD States and prohibits transboundary movement which are destined for re-cycling or recovery by 31 December 1997 from OECD to non OECD States.

It is however clear that even Basel Ban Decision was not enough to stop "toxic imperialism". This was evidenced by a report at the "Hazardous Waste Workshop" organised by the Gauteng provincial government on the 23 June 1995 at Wits University, Tebogo Phandu, an EJNF representative at the March 1995 workshop on the Basel Convention, in his report-back at the workshop said "But consensus was arrived at through hard efforts of the African and other South countries who managed to convince the powerful North countries that they aren't prepared to accept their countries as dumping grounds of the North. . . there was a growing evidence in the international press that indicates a concerted effort by the International Chamber of Commerce and some countries of the North to undermine the Basel Convention. Leaked documents revealed that these forces regard the Ban Decision in particular as threat to the so-called free trade".

Due to the shortcomings of the Basel Ban Decision, EJNF was also instrumental in ensuring that Africa has its own convention which would ensure that there is a total ban of importation of hazardous wastes particularly to Africa in particular. The "Bamako Convention on the Ban of the importation into Africa and the Control of Transboundary Movement of Hazardous Wastes within Africa", was adopted on the 30 January 1991, at Bamako in Mali. Its membership comprise over fifty African countries. The EJNF representative noted in his report, "It is in this wisdom that the African countries through the Organisation of African Unity adopted the Bamako Convention that bans the importation of hazardous waste into our continent. For the fact that most of African countries have signed the Bamako Convention despite the socio-economic situation, indicates the moral and political will to strive for a toxic trade-free continent." There is however a regrettable and conspicuous absence of South Africa in the Bamako Convention membership list.

Former "homelands" were also often targets of "toxic imperialism", Lukey (1995) notes that undemocratic, corrupt governments and severe cash shortages made the so-called independent homelands ideal targets for toxic waste merchants.

In the former Ciskei, notes Cock that plans to import large consignments of toxic waste were abandoned after there was a public outcry. Greenpeace noted that these unknown quantities of unknown chemicals, presenting health threats of unknown magnitude and duration to the people and ecosystems of neighbouring communities. However, the previous government was forced to reject the offer.

In October, 1990, Swiss arms dealer Arnold Kuenzler approached the South African consulate's scientific division in Switzerland with incineration and disposal plans for the then Ciskei, Bophuthatswana, Transkei and Lesotho. According to sources at the Foundation for Research and Development at the Council for Scientific and Industrial Research it was confirmed that four "homelands" had already received lucrative offers. Lawson (1991), notes the far-reaching adverse effects of such a development are exacerbated by the fact that a large majority of people in these regions are illiterate and are often not informed about the environmental and health hazards emanating from such developments. He further reiterates the latter point, "The possibility of the densely-populated "homelands" receiving toxic waste is frightening. Labels on drums will mean nothing to the majority of local people who are illiterate, and the possible results of an accident can only be imagined. Toxic waste exports only make sense to countries where labour is cheaper and environmental controls are weaker than in the exporting nation" (1991 : 171).

The Thor Chemicals industry in Pietermaritzburg saga is one of EJNF's most visible action and protest against "toxic imperialism", environmental racism, injustice and general social injustice. Lukey (1995), illustrates how Thor in England's "toxic imperialism" led to its transfer of operations to South Africa in Pietermaritzburg. In 1981 an inspection at Thor's plant in Margate, England, found levels of mercury in the air 20 times more than the legal limit. In 1987 rather than cleaning up its operations after many findings by the authorities of illegal mercury levels, Thor closed down its operations and transferred to South Africa. Furthermore, he notes that the way Thor's mercury processing is conducted in South Africa would not be allowed anywhere in the Northern industrialised world.

Since Thor Chemical relocated to South Africa, there has been several cases of workers and even surrounding communities suffering from ailments associated with mercury poisoning. In fact, a former employee of Thor Chemicals, Peter Cele died as a result of mercury poisoning, Lukey (1995). Cele was a casual labourer at in a section dealing with mercury at Thor. After one month he experienced bleeding gums, mouth infections, tremors, and shakes. He was retrenched but his health continued to get worse. In July 1993 Cele died after lying unconscious in hospital for just over a year, (ibid).

The above incident was by no means an isolated incident. Late in 1989 journalists discovered that large quantities of mercury were leaking from the Thor Chemicals plant at Cato Ridge near Durban. Analyses of water and sediment from the Umgweni River showed some of the highest mercury pollution levels recorded, placing the nearby squatter community at serious risk. The mercury at Thor was being extracted by incineration from waste from the United States. The waste had a 30 % organic content over four per cent, Lukey (1995). Coetzee notes that toxic waste now represents one of the most serious environmental problems world-wide, threatening both the environment and human health, (1994 : 1).

EJNF together with communities concerned and other organisations launched several effective protests against such acts that lead to environmental degradation and ill-health. Earthlife Africa, in particular has also been a pivotal ally in such protests. Earthlife is a progressive environmental group indicative of the emerging paradigm in environmentalism that incorporates environmental justice and social justice as holistic vision. At its National Congress in 1990 it adopted a "statement of belief" which included a commitment to "grassroots democracy, to ending exploitation and abusive power relations and a rejection of all forms of discrimination", Cock (1991). Furthermore, Earthlife Africa's social philosophy is similar to that of the green movement and its commitment to non-violent action echoes that of Greenpeace, (ibid).

Lukey in On Track magazine, further elaborated Earthlife Africa's perspective on environmentalism, "Earthlife follows the green ethic as opposed to the conservation or the environmental ethic. In conservation organisations, the subtext is: we accept development will cause environmental destruction, therefore will fence off some areas and keep them as they are. The subtext for environmentalists is: we will use our buying power to green industry, but industry must still benefit. The green ethic says that it's not just industry, it's the whole economic and political system that is at fault. Green consumerism is not going to work" (August / September, 1995 : 12).

Earthlife's shared vision of environmentalism with EJNF, has led to these organisations together with trade unions and communities often jointly engaging in protest actions. For instance in April 1990 protests were launched by the Earthlife branch in Pietermaritzburg in co-operation with the Chemical Workers Industrial Union (CWIU) and Greenpeace International. These protests were aimed at both Thor and the US multinational, American Cyanamid. Ten tons of waste are exported to the South African plant each year by the American corporation, Lawson (1991). The local community was also involved in the protest, for instance, black peasants, white farmers, students, unionised workers, green activists and a traditional Zulu chief, held a large demonstration outside the gates of Thor. This also signalled the potential for a powerful "rainbow alliance", (ibid).

White farmers involved in the protest had been victims of chemical pollution. In 1987 rain samples taken in the vegetable fields of the Tala Valley near Pietersmaritzburg revealed concentrations of the herbicide 24-D that were one million times higher than the amounts capable of damaging vegetable crops. The rain also contained levels of a similar chemical, 245-T, that were 10 000 higher than the legal limit in the United States. Both chemicals became notorious after they were used in the manufacture of "Agent Orange", the defoliant used by the US Army to destroy vast tracts of the forest that gave cover to communists guerrillas during the Vietnam war, (ibid). Subsequently a lawsuit was launched by the Natal Fresh Produce Growers' Association against twenty local and multinational chemical companies. Its members claimed to have suffered millions of rands' worth of damage to

their crops as the herbicides drifted onto their farms. The case was rejected on a technicality early in 1990 and the consortium of chemical companies threatened to claim costs in the region of R1, 5 million unless the farmers retracted and agreed to sign a humiliating acknowledgement that there was no proof that the herbicides cause environmental damage (ibid).

The composition of "actors" during Earthlife Africa's protests is testimony to its commitment to environmentalism that encompasses broader social justice issues. These protests have also built alliances across racial lines. The following quote in Cock (1991: 12) taken from The Weekly Mail, 9 May 1986, aptly reiterates the latter statement, "However, it is not only the young, white, middle-class and well-educated who appear to make up the social composition of Earthlife Africa - or organised workers or directly threatened communities - who are taking up environmental issues. There are grassroots struggles which include environmental issues".

Another indication of such diversity of "actors" and issues was the 1990 collaboration of the Food and Allied Worker's Union (FAWU), the Dolphin Action and Protection Group and Earthlife's Cape Town branch to protest at the activities of Taiwanese fishing trawlers. The owners of these ships were accused of strip-mining South African waters by fishing with illegal gillnets, (ibid). FAWU was concerned because of its members who were employed on the trawlers had to have their fingers amputated because of gangrene and frostbite caused by working without adequate protective clothing in sub-zero temperatures in the refrigerated holds of the ships of up to eleven hours, (ibid).

In 1990, Earthlife Africa's Natal branch joined forces with SA Rivers Association to protest against and stop an imminent action by the then Police Minister Andriiaan Vlok from spraying "dagga" or cannabis crop with a lethal defoliant called paraquat, (ibid). Vlok stopped the decision after the two groups intervened and argued that by spraying such a deadly chemical next to communities it was tantamount to government waging "chemical warfare". Paraquat is registered here as a class one poison and is responsible world-wide

for more poisonings than any other weedkiller. Tiny amounts of paraquat can be lethal if swallowed, absorbed through the skin or inhaled. According to a toxicologist, Robert Deane, as little as one microgram can cause fatal poisoning. In the United States it is restricted to licensed users and in Sweden, Denmark, the Philippines, New Zealand, Turkey and Israel is banned in or severely restricted to licensed users. The weedkiller is also listed as one of the "dirty dozen", the twelve hazardous pesticides and herbicides that green groups are campaigning to have abolished world-wide (ibid).

The Department of Water Affairs later suspended all operations involving mercury at the Thor plant. However, these were restarted after Thor corrected design and construction faults in its factory. The departments of Health, Environment Affairs and Water Affairs then indicated that they had no objections to the continued importation of mercury by Thor, (ibid).

Earthlife Africa together with local communities comprising a plethora of "actors" has also been active in environmental protest activities in Gauteng. The Chloorkop landfill site saga is also indicative of Earthlife's grassroots oriented approach to environmentalism. In 1989 Wastetech wanted to build a landfill site in Chloorkop in Kempton Park. In 1992, the Department of Water Affairs approved an old Klipfontein quarry site for the construction of the landfill.

This landfill was to be classified as a Class one waste landfill³. The establishment and completion of the landfill in 1993 has since provoked public outcry and protest particularly from the residents of Kempton Park, Thembisa, Rabie Ridge, Ivory Park, Midrand and Phomolong, under the auspices of a local branch of the ANC, a SANCO affiliated civic organisation, Kempton Park Ratepayers Association and Earthlife Africa (Business Day, 1993, June 13).

³ Class one landfills refer to those landfills that are reserved for the purposes of containing the most hazardous waste forms.

Some of the major issues that the latter coalition of organisations were protesting against were the following : The Chloorkop waste site was built under irregular circumstances 100 metres away from the community of Phomolong, (Environmental Justice Networker, No. 5 Autumn 1995). This was a contravention of basic community health rule - sites should not be closer than 800 metres to existing or planned housing, (Saturday Star, 1993, May 8). Furthermore, some of the complaints were the fact that there was no consultation with the nearby communities who could be subjected to possible health risks as a result of the landfill.

Among the important demands of the protesters were that permission for the site issued to Waste-Tech be withdrawn and Waste-Tech be barred from operating any waste management facility in an urban area, (ibid). Several protest strategies were employed by the protesters. For instance, four thousand people marched in the streets against Chloorkop. Furthermore, nearly as many written objections were submitted to the Kempton Park Town Council, (Environmental Justice Networker, No. 5 Autumn 1995). Protest action also included a march to the Kempton Park Town Council buildings on November the 29th, (The Star, 1993, November 30).

The above have thus far attempted to illustrate how progressive environmental groups like EJNF and Earthlife Africa, translate their paradigm of environmental justice and general social justice into practice. By highlighting some of the different issues that these groups have mobilised around, this study hopes it was able to illustrate and vindicate these organisations' philosophy that a holistic approach to environmentalism must be adopted.

Earthlife Africa and EJNF's alliances with the labour movements is particularly interesting and telling as far as their advocacy of social justice is concerned. This alliance is testimony to the reality that there is an interplay and interconnectedness of factors that threaten the lives and health of workers in the plant and continue to do so outside the plant into the broader and nearby communities. The latter point is reiterated by Lukey, "Factory fences can not stop the movement of toxic substances. Samples taken outside the Thor plant have

revealed some of the highest levels of mercury pollution any where in the world. At one time, the river below the plant was poisoned with mercury at concentrations of more than 1 000 times more the World Health Organisation's danger level. For the many people living below the factory, this stream is their only source of water in which to bathe and do washing. Many of these people have complained of skin irritation and headaches"

(1995 : 3). Furthermore, workers are said to "suffer a double burden with respect to environmental degradation, because they are first exposed to toxic chemicals in the workplace and second, they face the symptoms of environmental degradation in their homes.

Luckey notes that according to the International Labour Organisation (ILO), about 200 000 workers world-wide are killed every year at work. One hundred and twenty million people annually suffer from some occupational related disease or injury. The Bophal (India) incident whereby 3-800 people living in the surrounding areas died as a result of a chemical explosion at a factory is perhaps one of the most striking illustration of how environmental and safety problem in the factories have serious and far-reaching implications for not only the concerned workers but also the rest of the nearby communities.

In South Africa, every year 3 000 workers die in accidents on the job, while another 40 000 are injured, (Lukey, 1995 : 14). In South Africa any analysis of environmental racism and injustice would be insufficient without an examination of safety at the workplace and how the latter has implications for the surrounding communities. South Africa's labour practices of racial despotism have create a situation whereby African workers in particular were systematically subjected to low wages and poor working conditions, invariably these were disproportionately exposed to more dangerous working conditions than white workers who formed part of the labour aristocracy. Moreover, even the surrounding communities were in most cases invariably African as most of polluting factories in general where located next to black communities. Furthermore it is these communities who bore disproportionately the brunt of environmental degradation and ill-health.

Mobilisation, Participation and Grassroots Activism

After having illustrated the emerging paradigm of environmentalism in South Africa, it is important to analyse such type of mobilisation, participation, conscientisation and activism. Indeed the case studies of Earthlife Africa and EJNF forming informal alliances with communities to protest against environmental injustices, illustrates the importance of grassroots participation and mobilisation in creating environmental and social justice.

The Reconstruction and Development Programme, and indeed the government of national unity in general, recognises the central importance of the participation of the civil society in almost all the processes of policy - from policy conceptualisation up to its implementation. Participation is not just important in its own sake or for the sake of political correctness, its importance is far-reaching. It is important to allow communities especially those who were historically marginalised a space in which to determine the course of their well-being. This would ensure that communities their interests and needs are catered for in a way that is just and fair. Participation is therefore crucial in ensuring social justice. The RDP notes, "Delivery or enforcement mechanisms for social and economic rights must not focus only on the Constitution, courts and judicial review, but must include agencies which have the involvement of members and organisations of civil society as a means of enforcing social justice . . ." ANC (1994 : 131-132).

It is clear that a constitution that prohibits any form of discrimination and injustice is just a starting point, but is not enough to ensure the prevalence of environmental and general justice. The experiences of African-Americans are instructive. Even though there are statutory human rights that seek to ensure equal justice for all, in practice this has not happened, particularly in the sphere of the environment. For instance, in the US there is a plethora of legislation to ensure a sound management of the environment and in the process also ensuring that communities do not suffer ill-health and environmental degradation. However, African-Americans and other minorities still continued to suffer such adverse effects. The series of legislation comprise, the Resource, Conservation, and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation, and Liability Act

(CERCLA). Notwithstanding this legislation, it was shown that the people of colour still suffer from environmental degradation and its effects of ill-health (Bullard, 1993). The growth of the environmental justice movement in these communities is indicative of the persistence of environmental racism and injustice, and the determination to eradicate it.

Also central to the importance of participation of communities in environmental justice issues and social justice in general, is the need to engender empowerment of historically marginalised communities so that they can be able to meaningfully participate in issues that affect their lives, in particular the environment. This point was emphasised by Asrial, "... public participation, which I consider essential to good environmental management, requires us as a democratic government to build capacity, to empower those who have been historically silenced. It is very easy in the Palmiet basin in the Western Cape for this department, long before April 27th, to set up a very good open system for middle-class whites. ... But to have an active public participation process means you must help to give a voice, not to the already vocal and well-resourced dominant minority, but to the voiceless. ... Participation is giving people space, not taking space. ... It means the active involvement of people in the management of their environment" (1994: 10-11).

Social movements in the form of civic organisations are an important example of organs of civil society that acted as the "voice" of the oppressed during the anti-apartheid struggle, both at the macro level and micro level (community). However, due to the changing socio-political context, the role of these social movements has accordingly changed. Baskin, notes, "... civic organisations in all the major urban centres of South Africa are busy preparing themselves for a developmental role in the future. This marks a shift away from the politics of mobilisation that tended to characterise the anti-apartheid protests of the 1970's and 1980's. ... Civic organisations have made progress in exploring appropriate forms of organisation for community development. These include community-controlled land and housing trusts, credit unions and community loan funds, and community development corporations. ... In conducting struggles and campaigns at a grassroots level, civic organisations have become particularly aware of the need for a healthy environment,

with access to parks, gardens, recreational facilities, open spaces and clean air for all. However, these issues are seen as primarily political, economic and organisational, and not relegated to "environmental awareness on the part of individuals" (1993 : 62).

Even though this research did not study civic organisations *per se*, but rather activists who are involved in such social movements, it is nevertheless pertinent that their activism should be understood in a context of social movements. It is only logical to attribute these activists' conscientisation and general worldview, to their involvement within collectivities of these movements.

It appears from literature that the definition of social movements is a very loose one. Comacho (1993), notes that the term social movements is generic. For instance, the nature of a particular social movement depends on a diversity of factors such as historical situations, objectives, forms of organisation and leadership, political concepts and subjects. Hence, the term social movement could be interchangeably used with "people's movements" and "social experiments". Wignaraja (1993) notes that there are at least three viewpoints with regard to these movements in the Third World.

The first viewpoint is that these movements are in effect new social movements, because there was a time when all social movements in the Third World were engaged in a common struggle against colonial rule with the aim of assuming power. However, it is now these movements that do not fight to assume power, because these very states are in a crisis. Thus Wignaraja notes that these states constitute an integral part of the present crisis and response.

The second viewpoint sees social movements as new actors with a multiple agenda - political, economic, social, and cultural. These new actors are not fighting to assume state power but rather they represent a new breed of actors interested in creating a free space from where a democratic society can emerge. Therefore a corollary is that, whether or not power is an objective, these movements do represent a form of countervailing power.

The third viewpoint sees in these social movements, social experiments preparing a future desirable society. Therefore, inequalities that are built-in and unauthenticity hidden behind the window-dressing of "democracy" or "development" must be eliminated.

The above distinctions are valid and enlightening. It would however appear that in the context of South Africa, some of these views are not as distinct as it is suggested above, but rather there is an overlap. For instance, the inauguration of a new democratic government has witnessed the coming into office of many activists from a wide range of social movements that were part of the anti-apartheid struggle. However, even though these activists are now part of the state apparatus, some of the social movements from which they come are still in existence, for instance, civic organisations like the South African National Civic Organisation (SANCO). It therefore could be argued that even though these movements represent a form of counter power, they are however not antagonistic to the present government. The state and these social movements see themselves as partners in the process of reconstruction and development. In fact, there is increasing literature alluding to the fact that civics in particular are moving from politics of protest to politics of development, (Baskin 1993).

Another noteworthy point is made by Comacho (1993) about the "new" nature of some of these movements. There are other authors who also make a distinction between "old" and "new" movements. However, such a sharp distinction is disturbing. Tarrow (1991) also dismisses the validity of such a distinction, arguing that there are continuities and extensions between collective action and social movements over time; "extensions", in a sense that the "new" social movements are in fact not new but they are rather extensions of the of the so-called old movements. Tarrow argues that there are "cycles" of activities by social movements and these cycles create and leave a heritage in which a new cycle of activity can take place.

The above analysis by Tarrow appears to be valid with regard to the political context of South Africa. For instance, civics and other movements that are now engaged are in

development-oriented issues, have not emerged out of a void. Instead, it could be argued that the space and the political-cultural heritage created during the "old" social movements activism (during the anti-apartheid era) has facilitated and thus laid the material basis within which developmental/environmental civics and other organisations emerge and now operate. It is therefore against this background that respondents from Alexandra were chosen. Indeed it became clear that their previous engagement in anti-apartheid struggles within political organisations and civics has laid the basis for their conscientisation with regard to environmental issues as well.

Comacho (1993), notes that the nature and character of a particular social movement is dependent upon different variables and hence these movements are not homogeneous. For instance, the following variables could determine the nature of a social movement: issues, historical situations, objectives, forms of organisation, leadership and political concepts.

This latter point is indeed pertinent and instructive, particularly in the case of Alexandra. It became clear from the interviews with respondents that their material conditions, that is the pressing needs and issues in Alexandra, such as the need for housing and land, were seen to be broader problems and thus environmental concerns were not expressed in isolation of the latter issues. In fact environmental problems were seen to be arising from the former problems.

This chapter has attempted to shed light on the importance of participation and mobilisation of grassroots people especially those who have been historically marginalised. EJNF and Earthlife Africa were particular examples used to illustrate how communities affected by the threats of environmental degradation and ill-health have been key to averting and challenging such threats. It has also become clear that participation of communities in issues affecting their environment, their health and general well-being is critical to sustainable environmental management.

CHAPTER FIVE: ENVIRONMENTAL RACISM AND INJUSTICE AND EMERGING ENVIRONMENTAL JUSTICE ACTIVISM IN ALEXANDRA

Alexandra township, or simply "Alex" is also called the "Dark City". It earned the latter name as a result of lack of electricity in the township. It is bordered by the "white" suburbs of Wynberg, Lombardy, Kew and Marlboro. It is in fact one of the few "black" residential areas closest to "white" suburbs. A publication by Future Marketing aptly notes, "The biggest surprise of all is the situation of Alex. It is one of the few black townships to be completely hemmed in by white suburbs. Wynberg to the West, Marlboro and Kelvin to the North, Kew and Lombardy to the South; further away to the East, beyond the immediate boundary of the Eskom power lines, lie Modderfontein and Lumbro Park", quoted from the foreword, (1983). Alex's close geographical proximity to Sandton captures the glaring racial inequalities and the racial / class divide typical of South African society. Alex and Sandton's juxtaposition is also vindicates the Marxist-oriented argument that South Africa resembles colonialism of a special type. That is, a white minority population enjoying "first world" lifestyle on the one hand, and in the midst of this opulence, Africans are subjected to "third world" conditions, on the other. In fact, Sandton is reputed to be one of the wealthiest suburbs in South Africa, whereas Alex is largely known for its conditions of poverty and its concomitant problems. The prevalent squalor typifies Black townships.

The population size of Alexandra is fraught with a variation of estimations. For instance, according to the 1991 official Population Census the total population was 124 408. On the other hand, unofficial estimates put it at the following : 175 000 (Lawson, 1991), 250 000 (Albonico and Boden Design Programme, discussion paper), 350 000 (Khanyisa, Alexandra Civic Association Newsletter : 1994. Vol. 1. No. 1). Most of the respondents argue that it is difficult to make a reasonable estimation of the population size of Alex. They attribute this difficulty to the fact that almost every day there is an influx of people from other places, particularly those from the bordering states such as Mozambique and Zimbabwe. Nevertheless, most of the respondents are unanimous in their estimation of around 300 000.

Historical background

The history of Alex spans as far back as the early twentieth century. In 1905 it was proclaimed a township for white residents, but whites argued it was too far from Johannesburg city. The developers, a township company then had the area proclaimed for African and Coloured occupation in 1912, Pillay (1984 : 2). The proclamation of Alex as a black township signalled the beginning of socio-economic and political hardship for its new black inhabitants. In accordance with apartheid urbanisation, Africans were considered to be mere sojourners in "white" urban South Africa and thus denied basic infrastructure and services. Initially Alex was administered by a Health Committee to ensure a supply of clean water and to arrange for the elimination of waste (ibid). However, this arrangement did not lead to the abatement of the problem of administration, hence the comment, "The problem that burdened Alexandra from its creation right up to 1958 when the Peri-Urban Areas Health Board (PUAHB) took over, was that it was, in the words of Modikwe Dikobe, 'nobody's baby'. The government, provincial administration and the Johannesburg City Council all refused to absorb responsibility for the administration of the township " Pillay (1984 : 2).

Linked to the latter problems was the problem of overpopulation and housing shortage. Pillay further reiterates, "Since the creation of the township in 1912 vacillatory government policy have led to housing shortages, congestion and the development of typical slum conditions. While government has been prepared to accede to the expanding demands of capital for black labour it has not shown similar willingness to cater for the social and economic needs of this workforce" (1984 : 6). The increase of population in Alex could also be explained in terms of the political-economy context of South Africa. The expansion of the manufacturing industry in the post World War Two greatly increased the demand for labour on the Witwatersrand thus contributing to the rapid growth of Alexandra. In 1916 the population was approximately 900, since then it has increased from 7 200 in 1930 to 22 000 in 1937 and by 1943 was 45 000 (ibid).

It is clear that the legacy of high population density and severe housing shortage in Alexandra is deep-rooted. Pillay, notes that overcrowding was also perpetuated by racketeering in high rentals. In quoting the Johannesburg City Council 1943 survey, Pillay notes that 45 000 people were occupying 1 948 stands, an average of 23 persons per stand. By mid-1950's the population was estimated at 100 000 on an average of 40 persons per stand and up to 160 in some stands. Furthermore the approximate area of Alex was one square mile. The relaxation of influx control measures also led to the increase of population in Alexandra. By the 1970's Lawson (1991), notes that a population of 75 000 was living mainly in backyard shacks. In fact, Alexandra has one of the highest ratios of shacks to houses out of all the townships he has seen. Such conditions had their concomitant problems. For instance, the lack of adequate health facilities laid conducive conditions for the frequent outbreaks of typhoid and tuberculosis (ibid). Organised crime due to high rates of unemployment were also some of the socio-economic problems in Alex.

The above problems were further exacerbated by government policies of thwarting the establishment of a stable and permanent township. Lawson (1991) notes that in the 1960's Alexandra being a thorn in the side of the Nationalist government's separate development policy, it was scheduled for reconstruction as a migrant-labour hostel city in the 1960's. In line with this decision, much of the existing housing was destroyed and thousands of people moved into Soweto and other distant townships (ibid). For the next twenty years Alex was regarded as a temporary residential township, and there was little expenditure on housing or services like water, refuse removal, electricity, sewerage systems, roads or stormwater drains (ibid).

Politically, Alex residents and community leaders have also challenged the *status quo*. For instance the expropriation of property in 1963 by the government was met with resistance that saw the reversal of the government decision and as a result in 1979, May 7 Alex was reprieved. This reprieve came as a result of protestations and mobilisation under the auspices of "Save Alexandra Committee", led by Rev Sam Buti. On the other hand the reversal of the decision must also be seen against the background of state reforms at that

time, Lawson (1991), Jochelson (1990). The reversal of the decision was also an acceptance of principles underlying the Rickert Commission, recognising the existence of permanent urban dwellers, but rationalising labour supply by creating distinctions between "insider" and "outsider", Jochelson (1990).

The above problems have however not been significantly abated. Even today most of these problems still persist. For instance, Pillay's study notes that the overriding features about Alex are, chronic housing shortage, overcrowding and squalor. Furthermore he notes, "In the midst of affluence Alex displays much characteristics of an underdeveloped region. The high unemployment rate, poor educational qualifications of a vast section of the adult population, the higher than average age of school pupils, high employment-dependence ratios, the large percentage of unskilled and low-paid workers, especially women, are symptoms of a poor society" (1984 : 25).

The problem of overcrowding still persists. For instance, 80 hectares supports a population of approximately 70 people. The population density is between 655 and 825 persons per hectare. This is a stark contrast to "white" Sandton's population density of 51 persons per hectare. In the old part of Alexandra, at least 70 per cent of the residents are in informal housing (ibid).

The problem of over-crowding in Alex must however, must be seen against a background of the broader political and economic context that led to the general increased urbanisation, especially in the Gauteng region. Sapire (1993), notes that the state's urban policy reforms of the 1980's and broader economic change resulted in the deepening of social differentiation and the intensification of pressures on material resources. Furthermore, by mid 1980's combination of repressive urbanisation policies, acute housing shortages, the recession, conditions in the former "homelands" and farming areas, all conspired to produce a wide array of shack settlements, (ibid).

As mentioned earlier, the situation has not changed much in Alex, though in the late 1970's and 1980's government began to introduce some upgrading programmes. Lawson (1991) notes that during this period, the government has spent R138 million on the upgrading programme. The upgrading programme comprised, the tarring of certain roads, installing waterborne sewerage, stormwater drains, electricity reticulation systems and the rezoning for family housing and 99-year lease hold, (ibid).

Jochelson (1990) notes that the government development did not succeed in averting dissent in the township. In fact the implementation of the plan was a catalyst for opposition. It was to be realised later by the residents that they would pay the price of these developments through increased rents. In 1983 a liaison committee assumed black local authority status and increased rents beyond Alex people's means. The same year municipal elections were boycotted, as a result of the United Democratic Front's campaign against black local authorities. Alex Residents Association formed in 1984 after its precursor, Ditshwantsho tsa Rona, was also opposed to the government plan. The Alexandra Action Committee, led by Moses Mayekiso and Obad Bapela - an ANC MP and ANC senior official respectively - also intensified the rent boycott, (ibid).

The state responded by declaring a State of Emergency in 1985, and arresting scores of activists. In 1986, June 12, a second State of Emergency was declared. However, at the same time the Alex town council also collapsed, but Alex's administration was taken over by a mini-Joint Management Centre, part of the State Security Council's National Security Management System. It was also during this time that 13 Alex activists were charged with high treason, alternating with sedition and subversion in terms of section 54 (2) of the Internal Security Act of 1982, (ibid).

The above scenario of state repression and political mobilisation in Alexandra must however be seen in a broader political and economic context, as the situation was not confined to Alexandra. Since mid-1984 South Africa's townships have been the site of chronic violent confrontation - it is reasonable to state that the protests of 1984-86 have

constituted the most severe challenge yet to the apartheid state, Seekings (1988). Underlying these protests, radicalisation and repression were the changing structural context of the country in general and in particular the townships. The changing structural context particularly relates to the political and financial contradictions facing the local state. From the 1970's the state responded to the worsening political and economic crisis by reconstituting many of the basic state policies governing townships.

Reconstitution comprised among other things, the provision of basic services and infrastructure, such as housing. However on the other hand, the state expected Black Local Authorities to be self-sufficient by raising its own revenue by, mainly, taxing residents. As a result rents were raised to finance the provision of housing and services. Seekings however notes that attempts to achieve economic rentals coincided with continuing urban poverty. Indeed the latter point about rising poverty is evident in the case of Alexandra.

The 1990's have witnessed community-initiated attempts to develop Alex. For instance in 1989, the Alexandra Civic Organisation (ACO) contracted Planact, an NGO involved in urban planning, to study the housing and service situation in Alex, Lawson (1991). The "Alexandra Accord" was one of the milestone developmental projects in Alex undertaken by the local community through the Alexandra Civic Organisation. The Alexandra Accord was signed on 27th February 1991, between the then Transvaal Provincial Authority, Alexandra Civic Organisation, the then Alex City Council, Central Witwatersrand Regional Services Council, the Sandton Town Council, Randburg Town Council, Eskom, the Rand Water Board and the Development Bank of Southern Africa (Alex Joint Negotiation Forum, 1991). According to the publication, "Alexandra Accord", by Alex Joint Negotiation Forum, the accord was an agreement to deal with many of the problems facing Alex, such as land, housing, and services such as water, sewerage and electricity. In fact, the Joint Negotiation Forum (JNF) was set up by the parties to the Alex Accord.

The following were some of the proposals by the Alexandra Civic Organisation to the JNF on the future development of Alex :

- **Housing**

The residents of Alex should have to pay the money they owe for rent and services, people who rent houses should be able to own these houses, low cost houses to be built and the hostels must be upgraded;

- **Land**

Land must be made available close to Alex;

- **Services**

Services such as water, sewerage and rubbish removal, must be upgraded and must be well maintained, services must be affordable enough for everybody;

- **Local Government**

There must be one local authority for Alex, Sandton and the other white suburbs in the area, this authority must have enough money to manage the area properly.

The JNF accepted the above demands but in turn it demanded the end of the rent boycott.

The JNF publication on the Alex Accord notes that the agreement had many benefits for the community. In terms of short and medium term the following were achieved: rent arrears were written off, people were to pay special interim prices for services such as water, sewerage and rubbish removal ; the RSC was given R 3 million to provide the water and sanitation in hostels and shack areas , to provide toilets and upgrade the bucket system, rubbish removal and the improvement of the electricity system.

The Alexandra People's Fund was to be set up by the JNF to be used for community projects. The Fund was to obtain some of its money from the special service charges paid by residents. As far as electricity was concerned JNF agreed that the Regional Services

Council (RSC) was to be responsible for the supply of electricity to Alexandra, RSC in turn appointed Eskom as the agent.

- ◆ Long Term Development: With regard to long term development JNF established three committees, they are the following:
 - ◆ The Housing, Land and Development Committee was charged with the responsibility of looking for more land for the residents of Alex, plan the building of low-cost housing on the Far East Bank, improve conditions in the hostels and talk to hostel dwellers about turning hostels into family units, find out how and when the rented houses could be transferred to the people.
 - ◆ The Finance Committee was to find out everything about the conditions of services of Alex and involve the community in upgrading plans.
 - ◆ The Constitutional Committee was charged with the responsibility of finding out problems in the present local government system and recommend ways of setting up non-racial local government with one tax base.

The latter initiatives are pertinent as they are indicative of the developmental role played by the civic structure in Alexandra, especially since the early 1990's. Lawson (1991) notes that the situation has however not improved much. The population continues to increase at the rate of 300 people a month. The 1991 Population Census further highlighted other socio-economic indicators illustrating the persistence of problems in Alex. For instance, out of a population of 124 408, 60 757 are not economically active. Only 1 180 had a diploma with standard ten and 12 689 had a standard eight.

Environmental and Social Injustice and Environmental and Social Justice Activism

The preceding paragraphs in this chapter have attempted to sketch a broad outline of the social, economic and political dimension of Alexandra. It is important that environmental racism and injustice on the one hand, and environmental justice activism in Alexandra the other, must be understood against the above-sketched political, economic and social context.

An important and distinctive dimension that emerged from interviewing respondents and general observations is that there is no environmental justice movement *per se* in Alexandra. This does not mean that there has not been any environment-specific initiatives. However, these have not been viewed and conceptualised within the framework of environmental justice as such. As a result, I chose respondents of Alexandra who have a history of involvement in community struggles and who are also affiliated to political social movements, such as civics. The rationale is that civics and local branches of political organisations are increasingly characterised by development politics as opposed to exclusively and predominately protest politics of the past. Environmental issues constitute an important aspect of development and the views of respondents as community activists are important and instructive. Ernest, the chairperson of the South African Communist Party (Alex branch), an activist with a long history of involvement in Alex political struggles and general community issues, noted that, "In a place like Alex, that is fraught with rudimentary problems such as lack of proper sanitation, lack of enough land, overcrowding and other related problems, you can not afford the luxury of focusing exclusively on green issues of the environment. In as much as these issues are important, it is nevertheless imperative that the "bread and butter" issues of Alex are addressed first or together with the green issues".

Their (local activists) involvement in local politics with the aim of improving the living conditions of the residents, essentially constitute the notion of social justice in the broad sense. It was therefore important to see how or if indeed their historical involvement in

these struggles shaped their perspective and practice of the environment as a terrain on which justice should be achieved.

The understanding of the "environment" in Alex: the "green" and "brown" issues.

In trying to probe what the respondents in Alex understand the environment to be, the question, "What is your understanding of the environment and environmental issues?", was posed. In general terms it emerged very clearly that most of the respondents happen to define the environment very much in terms of their social reality, and thus according to the progressive perspective that was discussed earlier on. They noted that the environment is about where people live, and thus their everyday living surroundings. Therefore, this included proper housing, enough land, tarred streets and green spaces. For instance, one respondent, Mpho Mogomane noted that the environment was about, "the socio-physical surrounding, that is generally where people live, the space around them, the resources necessary to support life like housing, health care, food, clothing, roads, transport, communication infrastructure, water supply and sanitary necessities". Another respondent, Stimela, a youth who presents a programme on the environment and health on Alex's community radio, "Alex FM", expressed a similar understanding of the environment, "Its (the environment) not only about "green" issues, its about the healthy conditions within which people live, its about both people and other living things". Indeed, all the respondents alluded to the broader, day to day experiences of Alex, when they were defining the environment. None of the respondents made responses that invoked the old, conservation mainstream definition of the environment.

Even the experts who were interviewed on the very same question responded by alluding to the fact that the understanding of the environment must be in broad, holistic terms, thus taking into account people's social realities and concerns. For instance, Ann Sugrue, GEM's community Waste Programme Co-ordinator and also Earthlife activist, also argued that the environment is about everything, the air we breath, the water we drink, where we live and work and about other issues that affect the quality of life, like safety, health and broadly biodiversity.

Linked to the latter issues, is a question attempting to probe what respondents regard as environmental problems. Once more, most of what the respondents regarded as environmental problems, were also reflective of the socio-economic conditions in Alex. In other words, environmental degradation in Alex was largely attributed to the socio-economic problems in Alex. For instance, lack of housing and enough land and overcrowding, were some of the stated environmental problems. Mr. X, argued that a population of about 350 000 live on two square kilometres of land. The latter conditions have in turn led to a situation whereby people just erect shacks on any piece of land they find, even on sidewalks. This has led to the blocking of stormwater drainage system. The problem of over-crowding has also exacerbated the other problems such as increased amounts of litter and waste.

Some of the respondents identified those problems that could be regarded as exhibiting characteristics of direct or overt environmental racism and injustice. However, it is important to note that respondents did not use the term "environmental racism and injustice" *per se*, but the underlying causes attributed to these problems are due to apartheid and its structures of black local authorities. In fact, even white residents in nearby suburbs and industries are said to be also responsible for some of the social and thus environmental problems in Alex.

The Juskei river, which flows through Alex is reported by most of the respondents, as a site of dumping by white neighbours and industrialists as well. An article in New Ground, No. 16, by Moloi, notes that white neighbours' usage of chemicals from swimming pools, garden fertilisers and faeces from domestic animals and due to the run-off from these areas enters stormwater drains and then flow directly into the stream. However, the situation is exacerbated by the fact that the Juskei river is a ten kilometre stretch and thus passes through a lot of places. It starts at Bruma Lake, passes through Gillooly's farm and flows through industrial areas around Edenvale where it picks up industrial chemicals, including garden fertilisers residues from the residential areas. After that it goes through Modderfontein'spruit tributary, carries pollution from the AECT's Modderfontein's

explosives factory into the river and then flows through Alex and Sandton. In Sandton it passes through the then Johannesburg City Council power station in Kelvin, whereby incidents of ash running into the stream have been reported, and it then collects the run-off from the Linbro Park landfill site and then farmlands, where it collects run-off loaded with agriculture chemicals and fertiliser residues before joining the Crocodile River, along with the Magalies river and finally Hartbeespoort Dam, Moloi, (1994).

From the above detailed description of the physical route of the Juskei river it is clear that most of hazardous wastes and pollutants are generated by white residential areas and industries. It is furthermore clear that even though black residents in Alexandra do also dump in the river, they however suffer the most of the adverse effects as a consequence of the pollution of the Juskei. Children in Alex are reported to play and some times swim in the river as a result of lack of enough recreational facilities in Alexandra.

Indeed not only does the pollution in the river threaten the health and lives of the children in Alex, but it does also threaten those of adults since some of the people who live in nearby shacks do their washing in the river. Moloi, quotes a Department of Water Forestry noting that, "a tremendous high levels of nutrient pollution, which is the major contributor to the total pollution input (of the Juskei catchment area) the high nutrient loads from Alex are causing eutrophication problems in the Juskei river, and a depletion of the dissolved oxygen".

Apart from the Juskei river pollution by neighbouring white residents and industries, dumping, sometimes of hazardous material has been reported. In some certain instances this has led to serious health problems for children. In fact, earlier in this paper reference was made to a newspaper report (*The Star*, February, 6, 1992), on an incident whereby children were burnt due to a chemical substance that was dumped by a truck from near industries. It is unlikely that white children could face threats of ill-health as a result of playing in the river or dumps as they do not experience lack of recreational facilities in their areas and homes.

This paper has argued earlier that racism is not always direct or intended. However, in the case of Alex the conditions of squalor are prevalent due to apartheid planning and urbanisation. It has been already demonstrated in this paper how Alex is a product of such planning and urbanisation. In fact, it was even demonstrated how the government of the day during the early years of Alexandra's existence, disclaimed responsibility of administering the township, and thus invariably disclaiming responsibility for providing enough basic services. Therefore, in this case environmental racism and injustice is an extension of the underlying apartheid planning and social engineering.

Even though respondents did not employ the term "environmental racism", they however most of the time alluded to this effect. This is evident in the contrasting of the squalor conditions in Alex and on the other hand the clean and well serviced situation in white suburbs. Hence the observation by one of the respondents, Stimela, "Black townships are getting poor services or no services at all, and hence the prevailing environmental degradation and its accompanying health hazards. But whites get first preference in terms of the provision of services and a clean environment".

Environmental Activism

As noted earlier in this paper, there is no formal, mass-based type of environmental activism in Alex along the lines of Earthlife Africa or environmental justice movements in the US among minority groups. Even within the organisations from which most of the respondents come, it is clear that there is focus on environmental issues *per se*, however these are articulated within the framework of other more pressing socio-economic problems. As a result there has not been a specific focus on environmental problems as an isolated and specific terrain of struggle by these formations from which these respondents come.

It could however be seen from the background information about Alex that this township has got a strong history of contribution to the political struggle both at the national and community levels. Though these struggles were not about environmental issues *per se*, however, it could be argued that the issues that were at the centre of these struggles, were

issues that had far-reaching implication for the environment. In fact these issues were environmental issues, if a holistic definition of environment is employed.

The "green" and "brown" issues of environment in Alex.

The struggles of the 1980's were among other things, initially and primarily about rent and services boycott. These protests were about registering discontent about lack or poor standard of services and general poor living conditions.

The dominating and recurring concerns during the interviews with respondents from Alex were reflective of the "brown" issues of the environment. As explained earlier on, this refers to issues like, housing, land, electrify, proper sanitation and water. The "brown" perspective of the environment is a marked departure from the traditional perspective of the environment as an exclusively conservation issue. That is, the "green" issues.

The pressing "brown" issues in Alexandra have already been alluded to. It is the belief of the respondents that if there could be an improvement of these problems, invariably the prevalent environmental degradation in Alex could be drastically reduced. During the interviews respondents cited lack of proper and enough housing, lack enough land and over-crowding as some of the most pressing "brown" issues in Alex. They see the problems of lack of housing, over-crowding and insufficient land as interrelated. The problem of lack of proper and enough housing in Alexandra is conspicuously being made visible by many shacks that are erected in almost every open space in Alexandra. People even erect shacks on the bank of the Juskei river. As it has already been mentioned, about 75 000 people live in these shacks in Alex.

Darkie Rametsi of the Alexandra Land and Property Owners' Association (ALPOA), notes that, "It is almost impossible to have greenery in the form of parks and trees on the side-walks in Alex, whilst we are still faced with problems such as lack of enough land to build houses. In the first place, there is not even space for side-walks to plant trees. It would be foolhardy to want to build parks and not address the basic needs of the people such as

housing. "Without addressing the basic needs of the people, like housing, environmental initiatives will not be sustainable". Indeed, the latter comments are valid, as other respondents echoed the same sentiments. Mpho Mogomane, cited examples of the cleaning up of the Juskei river indicative environmental initiatives that are not sustainable. He notes that in the past there has been several attempts to keep the Juskei river clean, but due to the lack of enough land space, people have resorted to building shacks along the river bank. This has led to the persistent littering of the river.

The problem of over-crowding, which is largely attributed to the influx of illegal immigrants, is also seen to be largely responsible for the prevalent environmental degradation, particularly the problem of waste. Linda Twala of the Alexandra Refuse Removal, complained that refuse and waste problems in Alex increase by the day. He attributes this largely to the fact that Alex is experiencing an increase in its population size at a rapid pace. He further noted that it was inevitable as the Alexandra population increased so would the problem of waste. As one of the three refuse removal sub-contractors in Alex, he complained that the contractors do not have enough capacity to deal with the increasing volumes of refuse. Twala notes that if the problem of over-crowding could be curbed the problem of refuse removal could also be alleviated. This would in turn lead to improved health conditions and a living environment.

Other persistent and pressing "brown" issues included lack of electricity. Most of the respondents argued that the provision of electricity would help to alleviate environmental, health and other social problems such as crime. For instance, the provision of electricity could alleviate air pollution, which was cited by the respondents as one of the most serious health and environmental problems faced by the residents of Alex.

The preceding paragraphs have demonstrated that people in Alex define, perceive and understand environmental issues according to their social and material reality. Underlying their definition, perception and understanding, is the fact that they attribute this reality to the past policies of segregationist and apartheid engineering. This would mean that even if

the respondents from Alex did not specifically employ the concept of environmental racism and injustice with regard to the situation in Alex, they nevertheless attribute their conditions, including their environmental problems, to the racist policies of the past governments.

Their understanding of the environment confirms one of the main contentions of this study, is, environmentalism can not be understood outside the broader issues of social justice. The issue of environmental justice, is therefore part of the broader social justice course. Unlike the experience of African-Americans, who have been able to form a relatively strong environmental justice movement, this has not occurred in Alex and indeed in other African communities in South Africa. This research contends that this latter situation is understandable. Even though in the US it is a fact that the majority of African-Americans and other minority groups like the Latinos are relatively in a lower position with regard to socio-economic indicators, their poverty can not be same as that of most African communities in South Africa, in particular Alexandra. It is a fact that South Africa has got one of the biggest gaps between the rich (whites) and the poor (black). For instance, in Alex about 70% of the residents stay in *mekhukhu*, that is shacks. This does not mean one is denying that African-Americans do not have problems with regard to lack of housing. However, it does seem that some of the socio-economic conditions in Alex and indeed other African townships are more depressed.

The political dynamics between African-Americans and Africans in South Africa are also different. In South Africa, Africans who are in the majority in terms of numbers were able to install a democratic government led by the ANC. According to the majority of Africans, from which it draws support, the ANC-led government would fulfil their aspirations for social justice. Furthermore, most of the leadership and activist who belonged to social movements like civics are some of them are now top government officials.

Even for local government most councillors and officials are former activists from these movements. Therefore it could be inferred that because of these dynamics there is a sense

of ownership by the communities of the "system" and therefore the corollary is that there might not be a need for a protest-oriented environmental justice movement, as it is the "people's leaders" with a proven record of struggle for social justice for communities who are in charge of governance at all levels, national, provincial and local.

The latter situation is different from the African-American experience, where there is a vibrant environmental justice movement. African-Americans are in the minority and invariably they do not dominate the system of governance in the US. Therefore, one could discern that they would therefore feel that their aspirations and concerns are not adequately and justly addressed, because they themselves are not part of the "system" and thus are not in control. Therefore, it is such dynamics that could perhaps explain why in the US are still increasingly engaged protest oriented environmental justice movement.

The absence of a mass-based and vibrant environmental justice movement in African townships does not however mean that there has not been any initiative by the community to address environmental problems. Ernest noted that the South African Communist Party and the African National Congress Alex branches have endorsed and participated in clean up campaigns whenever they were organised in Alex. I also observed that during this year's Arbour Day, the South African rugby team was in Alex handing out trees to small school children. The following paragraph will highlight some of the examples environmental initiatives by the communities.

The Alexandra Environment Protection Group

The Alex Environmental Protection Group (AEPG) is a classical example of an attempt to form an environmental organisation but without any success. The idea of the group was conceived by one of the founder members Mpho Mogomane in 1993 and others, Sam Mhlungu, Isaac Hlongwane, Patrick Smith and Ezrom Mkiyne. All of these people have a long history of community involvement.

Mpho notes that the aim of the organisation is to educate the people of Alex about the environmental issues, how environmental hazards could threaten their health and lives and to also create a habitable environment and to establish parks. In fact, the idea of forming such an organisation, argued Mpho was precisely due to the appalling squalor in Alex and the concomitant environmental and health hazards generated by such conditions. In his own words he notes that the formation of such a group was important in that it could "enhance the social and natural environment of Alex".

However, ever since 1993 AEPG has been struggling to become a fully-fledged organisation. The problems faced by the founders of this organisation are multi-faceted. As a result AEPG has been a loose arrangement and also almost non-functional for most of the time.

Among other problems there are those pertaining to management and membership. Management problems refer to *inter alia*, lack of people who are willing to voluntarily perform management tasks. Mpho notes that most of the people who are willing to be part of the organisation are also preoccupied with their full-time jobs. On the other hand they can not leave their jobs to work for the revival of the organisation because of lack of income. Also linked to the latter problem is the issue of funding, in fact Mpho argues that the lack of funding is inhibiting them from forming a fully established organisation that is functional.

The problem of funding is in turn also linked to other organisational aspects. For instance, it is difficult to organise activities to pursue their goals. There are serious logistical problems and expenses of having to organise an event or a workshop. There are problems such as organising posters to advertise, hiring a venue and buying stationary among other things. In spite of such hurdles, AEPG has however embarked on a few activities. In March 1995, the organisation organised tree-planting in East Bank, a newly developed relatively up-market part of Alex. About 50 trees were planted and the sponsorship was provided by a donor named Netzer.

It looks like 1993 marked the highlight of the existence of AEPG, when during the Arbour Day, President Mandela attended a tree-planting ceremony. He planted a tree and also gave a speech. The occasion was held at the East Bank Sports Complex and was attended by over 1000 guests, remembers Mpho. However, the event was sponsored by Group for Environmental Monitoring, Trees for Africa and the then Alex town council. The success of this occasion shows the importance external assistance especially by well-established environmental NGO's like GEM. Again in 1994 AEPG celebrated Arbour Day by planting 500 trees, Trees for Africa supplied the trees. The World Environment Day was celebrated by stage video shows on environment at three primary schools in Alexandra. The sponsors were GEM and the Film Resource Centre.

The above outline is the actual history and story of AEPG thus far. The fact that this group has not become fully established has made it difficult to do any research with substance on it. However, the importance of this brief case study has been more symbolic than substantial. That is the problems faced by this organisation could be instructive on shedding light on some of the factors that impede any emergence of environmental groups in and outside Alex in African townships. This case study is also an good example of a genuine attempt by grassroots people of Alex to address environmental problems.

The Stswetla Squatter Camp Clean-Up Project

Stswetla squatter is one of the many squatter areas within Alexandra. There are about 5 000 people in Stswetla, with 1 000 households. Its clean-up project is a relevant example of grassroots-driven environmental project. Unlike the AEPG, this project is largely successful due to external assistance from ABSA and Keep South Africa Beautiful (KSAB).

The project has two key objectives, to keep the squatter area clean and also provide employment to local residents. The community approached ABSA for funding and ABSA provided the funding based on what it costs to clean up the area a year - R 100 000. Mr Mokwele who leads the project also approached KSAB on behalf of the community for

advice. The project is based on "one man, one contract" concept. That is, each person who is contracted has an area to clean, which could consist of 50 shacks. About 15 people are employed and supervisors get R 150 a week and cleaners R 125. Platisco, a local plastic company provides plastic bags and the local authority provides the skips into which rubbish is dumped.

The latter examples of community, grassroots environmental initiatives are indicative of some of the problems facing potential environmental initiatives in Alex. The AEPG for instance, has not been able to be operational because of lack of funds. With regard to the Stawella project it shows if it were not of ABSA's sponsorship, this project could have faced the same fate as AEPG. However, it would be interesting to observe the project and see if it would be able to sustain itself in the absence of ABSA sponsorship.

It is evident from the preceding paragraphs that there is very little activity and organisation around environmental issues *per se* in Alex. Besides problems such as funding as faced by the AEPG, the contention of this study is that it would be difficult to form an environmental organisation outside the socio-economic and political context of Alex. That is, environmental concerns can not be addressed at the exclusion of other pressing "brown" issues. Even the respondents, who are community leaders with a long history of involvement in Alex politics, support this view. They argue that the "green" issues of Alex can only be addressed by alleviating the pressing "brown" problems there.

CHAPTER SIX: CONCLUSION

The examination of literature on the concept and practice of environmental racism and injustice has revealed that this concept was very much in its infancy in South Africa, despite the fact that it is widespread. As a result this study borrowed from the United States' experience to shed light on the situation in South Africa. The concept of environmental racism and injustice was coined in the United States and popularised by the United Church of Christ Commission for Racial Justice 1987 report called "Toxic Wastes and Race in the United States : A National Report on the Racial and Socio-Economic Characteristics of Communities with Hazardous Waste Sites". This study was the first effort to present a comprehensive national findings of the relationship between hazardous waste and racism, Bullard (1993). As already stated, race proved to be the most significant among the variables tested in association with location of commercial hazardous waste facilities. Invariably it was minority communities, particularly African-Americans who lived nearby hazardous waste facilities and thus also suffered disproportionately this environmental degradation and ill-health as a result.

The US literature has played a significant role in the study. It has managed to demonstrate the scientific validity of the existence of environmental racism and injustice. This has been done through the comprehensive study of the United Church of Christ's Commission for Racial Justice, the empirical evidence which it produced and subsequent research. As a result this afforded the concept to be employed in this study without risking the possibility of it being dismissed as populist and devoid of any scientific basis. The US study has also been particularly relevant and interesting in that there are to some extent some similarities with regard to race relations between the latter country and the South African situation.

In both countries there is a presence of black people, even though in South Africa blacks are in the majority and in the US they are in the minority. In both countries blacks were subjected to institutionalised racism. However, in the case of the US, state-sanctioned racism was abolished in the 1960's during the height of the civil rights movement. In South

Africa, the installation of a new democratic government in 1994 signalled the end of apartheid - and hence the abolition of institutionalised racism.

In the United States however, African-Americans and other minorities like the Latinos, are still subjected to racial discrimination in most spheres of life. The findings of the United Church of Christ Commission for Racial Justice's report are testimony to the unabated prevalence of racial discrimination. Newspaper reports and other publications continue to show that African-Americans and minorities are worse socio-economically in relation to other race groups. This therefore illustrates the fact that official outlawing of racially discriminating laws does not necessarily preclude the prevalence and indeed the practice of racism. The legacies of racism are naturally deeply entrenched in and manifest through the social, economic, political - and indeed environmental fibre of the US.

In the case of South Africa the situation is not entirely different. The outlawing of racial discrimination has just recently happened with the inauguration of a new democratic government. It is clear that the legacy of racial discrimination is still pervasive in most spheres of life - including the environment. However, unlike the US, this study has not confined its application of the concept of environmental racism and injustice to the siting of hazardous waste facilities near black communities, even though the Chloorkop saga has demonstrated that in South Africa environmental racism and injustice does manifest itself in this fashion as well. Instead, this study has argued that environmental racism and injustice is not only an extension of institutionalised racism, it is inherent in the social engineering practice of segregation and apartheid. In other words, segregationist and apartheid policies inherently militated against the prevalence of an environmentally healthy black communities.

The latter argument was supported through the examination of apartheid planning, with particular emphasis on the urbanisation, even though attention was paid to rural areas, particularly the former "homelands". Various literature, for instance Posel (1991), Mabin

(1992), IDRC report (1994) among others, illustrate how planning and urbanisation was influenced more by the political and economic imperatives of white supremacist ideology than by rational economic and social considerations. Due to the white supremacist ideology underlying urban planning, blacks, Africans in particular were treated as merely "temporary sojourners" in the "white" urban areas of South Africa. This had far-reaching implications particularly for the environment. For instance, because Africans were treated as temporary sojourners, it followed logically that not enough quality basic services would be provided. As a result, there was not enough and proper housing, lack of enough land. This created overcrowding problems with its concomitant social and health problems. Lack of electricity also had far-reaching adverse health and environmental effects on the communities. The latter are just some of the examples of the far-reaching environmental and health implications inherent in segregationist and apartheid influenced urbanisation processes. This illustrates that racism and injustice and thus environmental racism and injustice does not always have to be explicit or deliberate. This contention has in fact been alluded to in chapter one.

Even though the central contention of this study is that environmental injustice manifests itself largely through race, it should not suggest that the importance of class is being undermined. In South Africa race and class are however inextricably linked. Blacks, particularly Africans were both politically and economically marginalised. On the other hand, whites who have been politically enfranchised have used their political power to pursue and consolidate their economic privileges. This interplay between race and class is clearly demonstrated in the labour arena, for instance, white workers used their political power to consolidate and perpetuate their labour aristocracy status by voting into power a regime that would institutionalise colour bars. On the other hand, African workers who were politically disenfranchised, invariably comprised the core of the cheap, unskilled labour force.

In the contemporary period the legacies of such racial despotism still persist even though there is no legal sanction of colour bars. This legacy manifests itself in the fact that the

majority of workers who die and get injured as a result of occupational accidents are African. The latter issues therefore demonstrate the primacy of race even in contemporary South Africa, and its inextricable relationship with class. Even the United Church of Christ Commission for Racial Justice 1987 report found that the overriding variable was race as far as the siting of hazardous waste facilities was concerned as opposed to the variable of class.

The historical denial of residential and urban franchise for Africans is also indicative of the interplay between race and class. Apart from the fact that the denial of basic services to Africans in the "white" urban areas and the concomitant environmental and health effects, poor communities have historically been the victims of pollution and the accompanying poisoning due to the nearby industries.

Closely linked to the unabated persistence of environmental racism and injustice has also been the prevalence of an authoritative conservation perspective. This study has argued that because of this perspective's preclusion of the broader issues of social justice, it has failed to see how some people suffer disproportionately from environmental degradation and ill-health. In other words this approach's narrow perspective fails to see the environment in a holistic manner and as such it fails to see it as not a neutral phenomenon but a socially constructed one. Social construction involves power and hegemony. Therefore those who wield more power will suffer less consequences of environmental degradation and ill-health and make those with less resources pay more.

The new, but still emerging and embryonic progressive and holistic perspective towards environmental issues is challenging the former "business as usual" perspective and thus brings hope of challenging environmental racism and injustice in turn. By employing social justice as a central component of environmentalism, it alludes to the fact that some people in society particularly poor people, disproportionately suffer the effects of environmental degradation and ill-health. This perspective's focus on the "brown" issues of environment such as access to clean drinking water, housing and land among others, is particularly

relevant as far as the socio-economic context of South Africa is concerned. It has emerged not only from literature and interviews with experts, but also from interviews with respondents from Alexandra that the concept "environment" must encompass the totality of the living environment, including the "brown" issues which are central to everyday survival. Therefore, without this broad perspective it would be difficult to achieve and sustain a healthy environment.

This perspective has however not unfolded only at the level of discourse but at the level of praxis as well. The emergence of organisations like EINF and Earthlife Africa represents a paradigmatic shift with regard to an encompassing and holistic perspective that is particularly emphatic on environmental and social justice. This study has also attempted to illustrate how these organisations have translated their principles into action. Their mobilisation strategies comprise marches, meetings, demonstrations, representations and interventions at policy levels.

The issues and constituencies involved in such activities are also indicative of a holistic and socially conscious understanding of environmental issues. As already discussed these issues are wide-ranging, they include among others, the poisoning of workers as a result of their exposure to dangerous chemical substances, opposition against the zoning of land near communities for class one waste landfill and "die in" demonstrations against toxic waste importation.

Most of the "actors" involved in these activities were grassroots people from poor communities. Furthermore, these communities were in most cases under the auspices of local civic and political organisations.

Alexandra

The usage of the concept "environmental racism and injustice" with regard to Alexandra specifically, has vindicated and confirmed the prevalence of this phenomenon. Earlier on it was demonstrated how for many years the previous government disclaimed responsibility for administering Alexandra. This has had far-reaching implications for the provision of

basic services. Invariably the latter situation also had adverse effects on the general environment and health of communities.

Environmental racism and injustice has manifested itself in very direct ways as well. The dumping by white residents in the neighbouring suburbs and industries (which are also white-owned), is a classical example. Inevitably, it is the people of Alexandra especially children, who bear the health and environmental costs of such practices.

It has also been demonstrated through respondents - who are actually community activists - understand environmental issues. They define environmental issues according to their material conditions. This latter point links to the issue of the absence of a mass-based, protest oriented environmental justice movement. This study contends that the absence of such a movement in Alex and indeed in other African communities, could be attributed to the fact that environmental issues (as defined by the progressive perspective) are seen to be part of the broader and more pressing socio-economic problems. Therefore the resolution of environmental problems is dependent upon the resolution of the broader, pressing socio-economic conditions in Alex. In fact, respondents explicitly argued that environmental degradation and the concomitant health threats are a result of inequivalent socio-economic problems such as lack of employment, electricity, tarred roads, proper sanitary facilities, enough and proper housing, and *inter alia*. Therefore, the corollary is that environmental problems will persist as long as these issues are not significantly resolved.

The fact that social movements and political organisations in Alex have been involved in developmental issues by co-operating with neighbouring former white local authorities, such as Sandton City Council and other government institutions, one could argue that community leaders in Alex see these developments as negating the formation of a protest oriented environmental justice movement. In fact, most of the activist from these social movements are now part of the new local government structures - involved in development and governance - not protest engagement.

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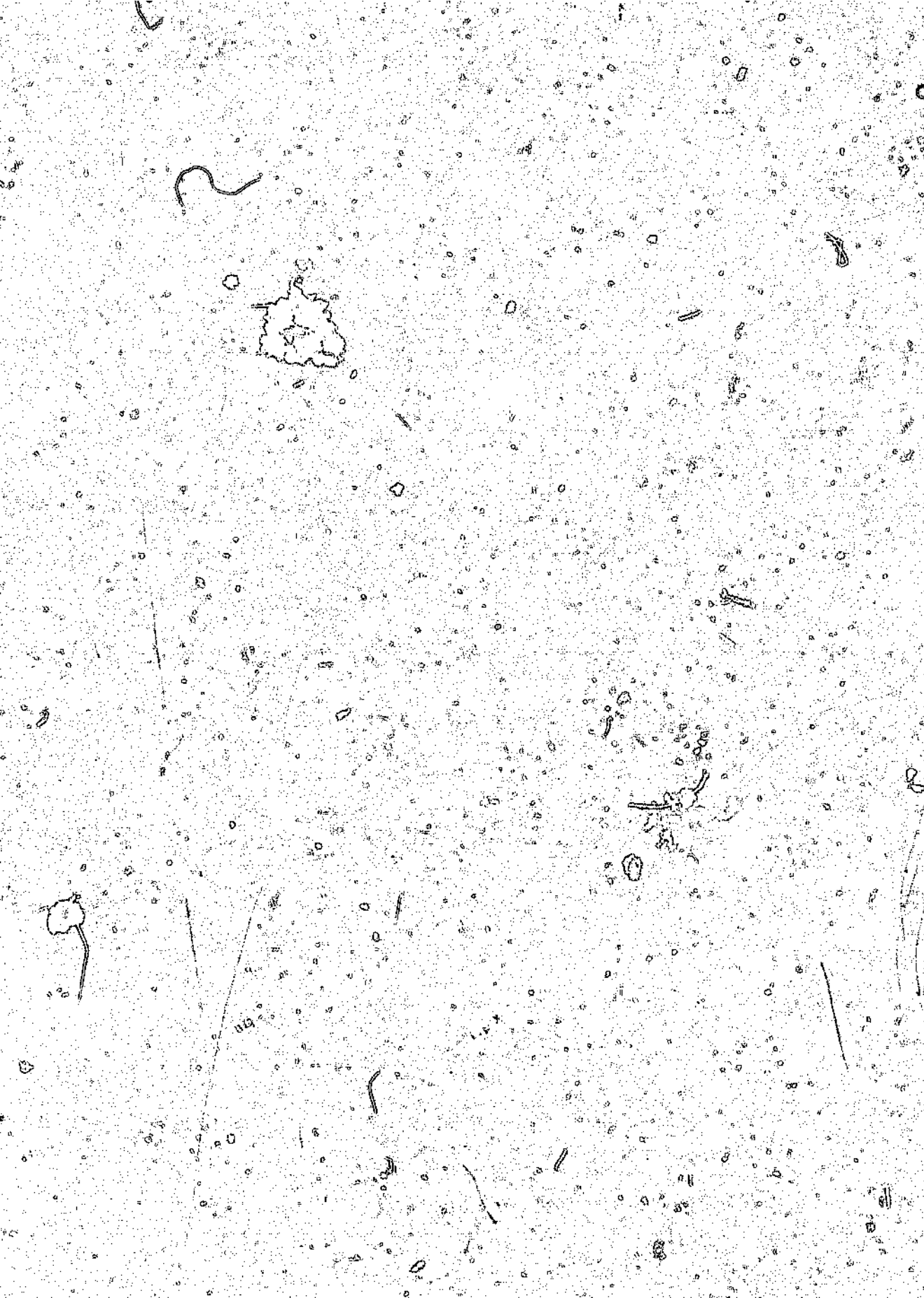
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Author: Bantsi Kgotlaetsho.

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