Environmental justice is about social transformation directed towards meeting basic human needs and enhancing our quality of life - economic quality, health care, housing, human rights, environmental protection, and democracy.

From the Environmental Justice Networking Forum (EJNF) charter

ABSTRACT

Environmental discourse in South Africa has undergone dramatic change in the 1990s. Since the unbanning of the ANC and other anti-apartheid organizations there has been an important re-conceptualization of environmental issues and a rapid politicization of environmental debates. Organizations like the Environmental Justice Networking Forum (EJNF) have made the links between poverty and ecology an environmental priority in the country and important gains have been made on a wide range of environmental fronts.

Environmental debates in South Africa have shifted from an historically racist and exclusionary discourse to one in which the definition of "the environment" has expanded to include the working and living environments of black South Africans. This has had a profound impact on the way that environmental policy is prioritized and developed in the country and has contributed to a strong, and growing, environmental justice movement in the country.

The first half of this paper examines this shift in environmental discourse by looking briefly at the history of environmental debates in the country and at changes in environmental legislation and policy-making procedures. The second half of the paper is a critical analysis of these environmental reforms - specifically as they relate to urban poverty. The delivery of basic services like sewerage and sanitation is arguably the single most important environmental concern in the country - by virtue of the fact that it directly affects the largest number of people - but it is unclear whether current urban upgrading initiatives are going to address this problem in an environmentally just and sustainable manner. It is argued that the interests of large scale capital and the propertied classes in South Africa continue to fundamentally shape-
and limit - the environmental policy choices available to the ANC government. Environmental conditions in South African cities will gradually improve over the next five to ten years, but in a way that is intended to benefit urban capital and surreptitiously off-loads the costs of urban upgrading onto the urban poor themselves.

INTRODUCTION

The history of environmental policy in South Africa is a cruel and perverse one. Under apartheid, thousands of black South Africans were forcibly removed from ancestral lands to make way for game parks, and billions of Rand were spent on preserving wildlife and protecting wild flowers while people in the townships and the homelands lived without adequate supplies of clean water, food, or shelter. Whites-only policies in national parks meant that black South Africans could not enjoy the country's rich natural heritage, and draconian poaching laws kept the rural poor from desperately needed resources in national parks - all in the name of nature conservation (ARA 1991; Fig 1991; IDRC 1995).

It is little wonder then that black South Africans (and anti-apartheid activists in general) paid little attention to environmental debates in the past. At best, ecology was seen to be a white, suburban issue of little relevance to the anti-apartheid struggle. At worst, environmental policy was seen as an explicit tool of racially-based oppression.

With the liberalization of South African politics a considerable amount of effort has gone into rethinking environmental issues. A vibrant debate is taking place on the meaning, the causes, and the effects of environmental decay in South Africa, illustrated in part by an impressive mushrooming of environmental groups from across the socio-economic spectrum and by a rapid growth of books, journals, discussion papers and conferences on a wide range of environmental issues. Many South African unions, community organizations, NGOs and political parties which had previously rejected or ignored environmental debates have now developed sophisticated environmental positions.

Perhaps the most fundamental of these developments is the most simple: a broadening of the definition of ecology. Once 'the environment' is redefined to include the working and living space of black South Africans it quickly becomes apparent that environmental initiatives are akin to other post-
apartheid, democratic objectives. The African National Congress has been making this point for many years now, claiming in its 1992 Ready to Govern document that improving the living and working environments of black South Africans is part and parcel of the struggle for a more just and equitable society (ANC 1992: 21).

The Pan Africanist Congress (PAC), amongst the most vocal critics of white, middle-class interests, has also stated in an official document on environmental policy that it "will adopt an holistic approach [to environmental issues], i.e. one which takes into account relevant social, historical, economic, political, as well as environmental, factors" (Desai [undated mimeo]: 1-2). Even the National Party has taken a new approach to environmental issues, stating in a governmental White Paper on the Environment, written while the party was still in power in 1993, that:

> a holistic environmental approach must form an integral part of all facets of environmental planning and development. This includes the human environment as well as the natural environmental elements taking into account the specific influence of socio-economic factors (GSA 1993: 10).

There has also been an explicit link made between poverty and environmental degradation in South Africa. Noting that "poverty and environmental degradation have been closely linked", the ANC maintains that "measures such as land reform, provision of basic infrastructure, housing [and other services]...should ultimately reduce pressure on the natural environment" (ANC 1994: 38, 137). Similar statements have been made in the business community (Huntley et al. 1989), by local government authorities (CCC 1993), by NGOs (Palmer Development Group 1995), and by a host of other political parties, environmental groups and academics.

The environmental rationale for upgrading urban areas could hardly be more compelling. With an estimated 6.76 million people living without adequate sewerage and sanitation in urban areas - 31 percent of the urban population of the country - and some 2 million urban dwellers still relying on the bucket system for toilets (ANC 1994; GSA 1995a), it comes as little surprise to learn that ground and surface water supplies in most metropolitan areas are heavily contaminated with bacterial and toxic waste. The fact that millions of urban dwellers do not have access to electricity and are forced to cook and heat with paraffin, wood or coal leads to deforestation and erosion in the peri-urban areas.
and contributes to dangerously unhealthy levels of air pollution in the townships and squatter camps. Unplanned urban sprawl also contributes to serious environmental degradation as squatter camps sprout up in ecologically sensitive areas like river banks and sand dunes causing irreversible environmental damage (Main and Williams 1994; Khan 1994; IDRC 1995; Vogel and Drummond 1995; GSA 1997b).

These service-related environmental problems are not restricted to urban areas of course - an estimated 85 percent of the rural population in South Africa do not have adequate sanitation services either (GSA 1995a) - but cities are expected to account for 70 percent of the country's population by the turn of the century (ANC 1994: 86). A combination of urban migration and population growth means that nine million more people will be living in South African cities in five years, the majority of whom will be "incapable, for economic reasons, of constructing anything but the most rudimentary of shelters for themselves" (IDRC 1992: 1).

Nor are these environmental problems restricted to the townships and squatter camps. Although it is the poor who feel the effects of this urban decay most acutely and most directly, the lack of basic services for millions of urban residents threatens to undermine the environmental integrity of South African cities as a whole. Cape Town's fabled beaches, for example, are periodically closed due to high bacterial levels resulting, in part, from a lack of proper sewage in the Cape Flats, and the thick layer of yellow smog that hangs over the city like a blanket in the winter is partly due to smoke and debris from fires and refuse piles in the townships.

As noted above, the ANC is acutely aware of these poverty-related environmental problems, and have made an explicit link between urban upgrading initiatives and the need to stem urban environmental decay. The ANC has also, in conjunction with other political parties in the new government, introduced the notion of a 'right' to a clean and healthy environment into the Bill of Rights in the new Constitution (Chapter Two, Section 24):

Everyone has the right:
(a) to an environment that is not harmful to their health or well-being; and (b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that
(i) prevent pollution and ecological degradation;
(ii) promote conservation; and
(iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

Legislative initiatives such as this illustrate the extent to which environmental thinking has moved from its previously narrow, racist base to one which links ecology to the socio-economic welfare of the nation as a whole - no small accomplishment in a country where environmental issues were simply not on the political agenda less than a decade ago. For policy makers in South Africa today, environmental issues are now seen to be a concern for all South Africans - from white, suburban housewives to black male unionists. The notion of a “rainbow coalition” (Koch 1991) of environmentally concerned groups and individuals that cuts across race, class and gender divides, pervades environmental discourse in the country. As Nelson Mandela states in the Preface to what is the most thorough analysis of environmental issues and policy-making in South Africa to date: “Environmental concerns can unite South Africa, going beyond racial, political and economic barriers” (IDRC 1995). An environmental justice movement has taken root in South Africa, and with over 450 organizations allied to the EJNF alone (a coordinating body committed to “linking environmental and social justice issues”), there would appear to be real grounds for optimism for continued change.

This is not to suggest, however, that there has been a complete sea-change in environmental thinking in the country. Despite a growing number of environmental groups based in the townships and working on township and poverty-related concerns, the largest and best-funded environmental groups are still middle class and suburban in their make-up and outlook, and the media continue to focus on flora and fauna in their environmental reporting. Funding for environmental research and policy implementation is much the same, prompting the EJNF to announce on the front page of its January 1996 newsletter that: “Apartheid’s environmental agenda continues”. A detailed survey of the ten provincial Ministries of the Environment by EJNF staff found that “animals and plants [are] still [considered to be] more important than poor people. [P]rovinces are spending hundreds of millions of Rand on conserving plants and animals in nature reserves, and almost nothing on preventing
pollution and other environmental problems outside of these playgrounds for the rich" (Environmental Justice Networker; No. 8, 1).

Nevertheless, change is taking place, and with organizations like the Wildlife Society of Southern Africa joining EJNF and publishing articles about poverty-related environmental concerns in their glossy publication (e.g. African Wildlife 48,3) it is clear that environmental discourse in South Africa will never be quite the same again.

A NEW APPROACH TO POLICY

There has also been considerable progress in developing new environmental policy-making procedures in South Africa. The top-down, racist environmental policy making of the past - generally conducted by white apartheid bureaucrats and politicians behind closed doors - was inconsistent with the broader democratic reforms taking place in the country and there are on-going efforts to develop more participatory and more democratic forms of environmental planning.

The emphasis here has been on opening up the environmental decision-making process to as wide a cross-section of civil society as possible and giving these groups and individuals the technical and financial assistance necessary to participate in an informed and meaningful manner (IDRC 1995; Lukey 1995). With the transfer of the Environmental Affairs and Tourism portfolio to the ANC (after the National Party pulled out of the Government of National Unity in August 1996), and with the appointment of one of the ANC’s most progressive cadres as Minister, Pallo Jordan, this participatory process has received a real boost.

The most recent examples of this new approach to policy-making are the government’s Green and White Papers on environmental policy and management - released in October 1996 and July 1997 respectively after months of discussions with NGOs, community organizations, academics, environmental groups and private sector representatives. This ‘Consultative National Environmental Policy Process’ (CONNEP) was arguably one of the most open and accessible policy-making initiatives that the new government has undertaken (after considerable pressure from environmental groups like EJNF, mind you).

The public will also be able for the first time to participate in decisions about large industrial and commercial developments in the country, and Environmental Impact Assessments (EIAs) will now be made available for
public review and comment before major industrial projects are approved, such as the plan for a large steel mill in the highly ecologically sensitive Saldahna Bay region north of Cape Town. Much of the participatory process around EIA, however, is still dominated by what Greg Krill (1995) refers to as 'greenwash' - an attempt by corporate executives and 'envirocrats' to 'disguise and mislead' the public about the true extent of industrial development and its impact on the environment. The Richard's Bay Minerals company's mining of the ultra-sensitive sand dunes of St. Lucia on the east coast of the country is a particularly instructive example of how corporations in South Africa can still run roughshod over a public participation process (Munnik 1993: 6-9). The situation in Saldahna Bay, although an improvement on the St. Lucia fiasco, is riddled with similar concerns and contradictions.

Nevertheless, environmental policy initiatives have also changed for the better in the country and South Africa has taken several 'steps forward' in this important aspect of environmental policy making. There have been important gains made at all levels of government, with municipalities (eg. CCC 1993), provincial governments (eg. Government of the Western Cape 1995), and the national government (eg. the Green and White Papers on environmental policy) all recognizing the need to include civil society in the decision-making process. But as important as these legislative and rhetorical changes are, what do they mean on the ground? Will poor, black South Africans actually see an "environment that is not harmful to their health or well-being" in the near future? Does the fact that local authorities are now required by law (GSA 1994a: 18) to ensure that all residents of a municipal area have access to basic amenities like sewerage and sanitation mean that change will actually take place in South African cities - and if so, will change take place in an equitable and environmentally sustainable manner?

The answer, in short, is yes and no. On the yes side, there can be little doubt that material living conditions for the majority of South Africa's urban poor will gradually improve over the next five to ten years - and so, by default, will the environmental problems associated with current levels of urban poverty. There are, however, real constraints to what the ANC is able to do with its urban upgrading initiatives and there are disturbing questions about environmental justice and long term urban environmental sustainability that have yet to be adequately addressed in the South African environmental literature.

A discussion of these points requires a closer look at the historical conditions that have given rise to the recent push for urban upgrading in the
country and how this push for urban upgrading fits in to the post-apartheid transition. I will begin with a brief review of why some level of upgrading is bound to take place, and follow this with a critique of what is argued to be a corporate agenda to tailor urban upgrading initiatives to the needs of large scale capital in the country. Finally, we look at the environmental implications of this corporate agenda.

WHY SOME UPGRAADING WILL TAKE PLACE

The most obvious reason for why some degree of urban upgrading will continue to take place in South Africa is that the national government and the majority of voters want to see it take place. The ANC and its allies in the union and civic movements made the provision of housing and other basic municipal services to the urban poor a cornerstone of the original Reconstruction and Development Programme (RDP) (GSA 1994b) and urban upgrading remains a government priority. Delivery problems aside, governments at all levels in the country are working towards the delivery of housing and basic services to township and squatter camp residents, and the ANC has committed itself to providing the following basic services to all South African citizens over the next ten years as a bare minimum "easy access" to clean drinking water at communal stand pipes (generally interpreted to mean within 200 metres of the home) with a minimum supply of 25 litres for each person per day; on-site VIP toilets; open stormwater drainage and graded, gravel roads; a household energy supply (either electricity or alternative sources like solar energy); and basic refuse collection services (GSA 1995b, 1997a).

It could also be argued that the average (predominantly white) middle class South African citizen would like to see some form of urban upgrading take place in South African cities - if for no other reason than to reduce crime rates and instability in urban areas and to relieve the 'eyesores' of squatter camps along major roads and highways. There is, of course, a wide range of opinion from the 'middle class' as to how this upgrading should take place, and considerable resistance to increased taxes for upgrading initiatives (a point we shall return to below), but overall there is significantly more acceptance in white suburbs of the need to upgrade the townships now than there was ten years ago.

There can be little doubt, however, about the interest on the part of big business in South Africa to see urban upgrading take place - an interest which
was demonstrated by the enthusiastic support of large scale capital for the RDP. In addition to full-page newspaper advertisements taken out by organizations like Anglo American and Old Mutual in support of the RDP, corporations went so far as to finance government publications on the programme - like the glossy 20-page review published by the Office of the President on the first anniversary of the new government being in office, financed by BMW, Iscor, Land Rover SA Finance, Liberty Life, Siemens and the Standard Bank (GSA 1996: 21).

This support for urban upgrading is nothing new for big business in South Africa, however, and has much more to do with the historical development of capitalism and an acute crisis in capital accumulation under apartheid than it does with any humanitarian desire to improve the material living conditions of South Africa's urban poor - a point to which we now turn. It is not my intent, I should note, to write a 'definitive' account of urban reform in South Africa with what follows (if such an account were even possible). Changes in South African cities are happening too fast and relationships are too complex to try and discuss all of the nuances of urban upgrading in one article. My objective here is simply to piece together existing radical arguments about the interests of large scale capital in South Africa with respect to post-apartheid reform and to apply these insights to an understanding of urban ecology.

WHY BIG BUSINESS WANTS URBAN UPGRADEING

After several decades of extremely profitable - and shamefully compliant - commercial and industrial activity under apartheid governments, large scale capital in South Africa found itself, in the mid-1970s, faced with a growing crisis in capital accumulation. This loss in profitability and productivity in corporate South Africa arose primarily as a result of the contradictions inherent in "racial capitalism" (Saul and Gelb 1981: 17-19; O'Meara 1996: 169-190). The first of these was the lack of a mass, black consumer market. Years of job restrictions, (state-backed) low wages, and rates of formal unemployment exceeding three-quarters of the black population in some parts of the country meant that the overwhelming majority of black South Africans could not participate in a mass consumption economy. This lack of a black consumer market, combined with a saturation of the white South African consumer market, meant that there was little room for expansion in the domestic economy.

Second, with the imposition of international trade sanctions after the Soweto uprisings in 1976, it became increasingly difficult (although not
impossible) for the bulk of South African firms to expand internationally. Add to this a growing shortage of skilled black South Africans to fill key managerial and technical positions in white businesses (a result of job colour bars and apartheid education policies), a growing militancy in the trade unions, poor health in the townships (read poor productivity in the workplace), and the rocketing costs of policing apartheid and conducting proxy wars in the region, and it is not hard to see why large scale capital began to complain about the need for a change in government policies.

With the apartheid state apparently unwilling, at least in the 1970s, to make sufficient changes to the apartheid system, big business took it upon itself to call for more meaningful structural reform - most notably with the formation, in 1976, of the Urban Foundation (UF). Funded by some of South Africa’s largest conglomerates and operated with the expressed intent of improving material living conditions for urban blacks and influencing urban policy (McCarthy 1991), the UF was openly critical of attempts by the apartheid state to create ever more bureaucratic versions of apartheid. Arguing that more serious reform in the townships was necessary to “spearhead economic growth and demonstrate the opportunities of an expanding domestic market” (Bernstein 1991: 329), the UF articulated corporate South Africa’s newfound interest in upgrading urban areas to create more black consumers and healthy, skilled workers. In the words of Mr. Justice Steyn (Executive Director of the UF in the early 1980s): “If people want the free-enterprise system to continue [in this country], they are going to have to get off their butts and make contributions towards housing” (as quoted in Soni 1992: 45).

Equally important was the fact that by the end of the 1970s there had also been a “transformation of both the ideology and the class basis of Afrikaner Nationalism” and a definitive split within the National Party on whether more substantial urban reform should be adopted. A new “class of Afrikaner financial, industrial and commercial capitalists” had emerged from decades of state assistance for Afrikaner business and had become the “dominant faction” within the National Party. No longer the poor cousins of English enterprise, the elites of Afrikanerdemok had transcended their dependence on a racist election ticket and allied themselves with corporate South Africa in an “attempt to secure the political and economic conditions for renewed capitalist prosperity and stability” in the country (O’Meara 1983: 254-5). By the mid-1980s, “thinking within the National Party and senior civil service circles to a large extent reflected the liberal paradigm” of English capital (Hendler 1991: 201), and with its 1996 White Paper
on. Urbanization the apartheid state had officially acknowledged that black urbanization was not only inevitable, it was economically desirable. Rather than spending billions of Rand to try and keep blacks out of the cities, "the urbanization of the African population was to be turned from problem to solution, with the processes of industrialization and cultural change expected to transform a discontented and threatening people into more compliant members of a mass-consumption society" (Smith 1992: 2).

It was this desire on the part of large-scale capital - and similarly-minded bureaucrats and politicians in the apartheid regime - to revitalize capital accumulation in a market economy that was arguably the most important catalyst for the current post-apartheid transition (Murray 1994, O'Meara 1996). Years of neo-apartheid reforms and sanction-busting had managed to hold the economic crisis at bay for some time, but by the end of the 1980s it was clear to the captains of industry and the 'enlightened' elements of the apartheid government that it was time for more drastic change - but change that could be shaped according to the needs of capital.

There is, however, no singular alliance of capital, or even large scale capital, in South Africa. Different firms and individuals have different specific interests and different capacities to respond to crisis and urban poverty. The owner of the Pick 'n Pay grocery chain, for example, has fundamentally different interests in urban upgrading than a corner grocer and very different capacities to deal with urban change. Nevertheless, one can identify a clear set corporate actors (e.g. Anglo American, Pick 'n Pay, Old Mutual), with a clear set of material interests in urban upgrading, and one can readily document their participation in pushing for this change. There are at least two key urban upgrading objectives of large scale capital and its allies: the desire to create a black consumer base in South (and Southern) Africa capable of participating in a mass consumption economy; and the desire to create a more healthy and more productive urban workforce which will enable South African firms to compete internationally. We shall look at each of these points briefly before going on to discuss their relevance to urban ecology.

**Mass Consumption**

One of the most basic prerequisites of mass consumption - personal incomes aside - is adequate infrastructure. Without electricity to run appliances (two-thirds of South Africa’s population is not connected to the electricity grid), without good roads to transport goods safely and reliably to their destination,
and without refuse collection services to collect rubbish and obsolete products, it is virtually impossible to build and sustain a mass consumption economy. And without adequate shelter in which to safely store goods like a refrigerator and television it is virtually impossible for people to consider buying such products. Running a television off a car battery in a backyard shack is certainly possible - and popular - in South Africa but it is hardly the route to mass consumption in an industrial economy.

Electrification, road building, housing, access to clean water, sewerage and sanitation - these are the stuff of mass consumption. One need only look at the history of investment in urban infrastructure in advanced capitalist societies in Europe and North America to understand the motivation, and indeed the 'necessity', of such investments on the part of large scale capital. As David Harvey (1982, 1989, 1996) has demonstrated at both a theoretical and empirical level, the tendency for capital in a market economy to 'over-accumulate' in the hands of a few means that "capitalists often need to make investments [in infrastructure such as roads, housing and sanitation] in order to fashion an adequate social [and physical] basis for further accumulation" (Harvey 1989: 65, original italics). Investment in what Harvey refers to as the "built environment for consumption" has a clear cyclical pattern in Europe and North America corresponding to periods of crisis in accumulation and dating back to the early 1800s. These investments, according to Harvey (1989: 64, 39) have been made in an effort to "accelerate the turnover time of capital in both production and consumption" and to expand the consumer base.

Although the particular social, economic and political conditions for infrastructure investment in South Africa in the 1990s clearly differ from that of Paris in the 1850s or Los Angeles in the 1960s, the 'need' for investments in the built environment are just as acute, if not more so, for capital in South Africa today as they have been for other capitals in other situations. This 'need' for infrastructure investment, as discussed above, has been loudly articulated by groups like the Urban Foundation for over twenty years and can also be seen in the following quote from the RDP White Paper (GSA 1994b: 23-4):

Investments that follow the logic of the RDP offer tremendous opportunities for the South African industry. In particular, major investments will be made in electricity, health, housing, education, telecommunications and the information infrastructure, transport, and public works such as roads, water and sanitation ... In this respect ...
The RDP creates a large local market for industry which allows it to design and develop products with a stable home base. This also provides the predictability to allow the extensive restructuring which is needed to make the country's industries more efficient and effective. For instance, the domestic appliance industry expects its local market to increase by millions of new consumers, and is thus restructuring itself and designing new products.

This is not to say that the RDP (or even its more neoliberal sibling, the Growth, Employment and Redistribution (GEAR) programme) is merely catering to the needs of large scale capital in South Africa or that the new government simply operates at the behest of capital. But it is clear that capital has pushed for investments in infrastructure for a long time now and that capital will benefit enormously from these investments by enabling the creation of a larger domestic consumer base.

International Competitiveness
The concept of 'global cities' is also relevant to our discussion here. As cities increasingly become the loci of economic growth, and as capital becomes less dependent on the assistance of the nation-state, more and more attention has been paid to the 'competitive advantage' of cities - i.e. the ability of cities to provide efficient and effective social and physical infrastructure to allow firms to compete in a global economy (see Clark 1996; Swisher 1996). If a city is unable to provide a reliable supply of water and electricity, or is unable to get its workforce to work on time with effective public transportation, then capital is less likely to succeed in a globalizing economy and/or will leave for greener pastures. In South Africa, with over 80 percent of the country's GDP produced in urban areas, the need to create competitive investment and production environments is critical to the South African economy, as demonstrated by the following quote from the government's Discussion Document on an Urban Development Strategy (GSA 1995c: 13): "Immediate working towns and cities are crucial... to restoring and speeding up economic growth in South Africa, and to enhancing the global competitiveness of the national economy.... South Africa's cities are more than ever strategic sites in a transnationalized production system."

Investment in urban infrastructure is essential to the future competitiveness of South African capital in a global economy. If factory workers in Cape Town are constantly off sick with tuberculosis due to a lack of clean water in Crossroads, or if workers in Johannesburg miss work due to a fire that...
has destroyed a hundred shacks in Soweto, it represents a significant loss in productivity for South African firms. Although statistics do not exist which make a direct link between a lack of basic services in the townships and productivity loss in the workplace in South Africa it has been estimated that productivity losses in other countries in the South can be as high as five percent of GDP (as noted in Bartone et al. 1994: 11) - losses which put South African capital at a distinct disadvantage internationally. Investments in urban infrastructure are therefore also seen to act as a necessary springboard to international competitiveness for South African firms and help to open the door to new international markets for a wide range of South African goods and services.

A CONVERGENCE OF INTERESTS?

But surely - one might say - this push for investment in the built environment goes well beyond the machinations of large scale capital. Investment in physical infrastructure is clearly a good thing for all South Africans, and if it helps South African conglomerates to “accelerate the turnover time of capital in both production and consumption” that is not the only reason it is going to take place.

It would be a hard-nosed observer indeed who was unwilling to recognize the decades of unswerving commitment on the part of the ANC-alliance to improving the material living conditions of South Africa's urban (and rural) poor and I want to reiterate once again that in no way am I trying to suggest here that the recent push for urban upgrading merely serves the interests of the propertied classes in the country. It is essential, however, that we understand the limits of this convergence of interests on the part of the 'haves' and 'have-nots' in South Africa. Specifically, we must ask how willing large scale capital in South Africa is to pay for the urban upgrading that it so desperately needs and wants.

Not very, it would seem. Having forced the ANC to adopt an extremely conservative macro-economic position at the national level, capital (both domestic and transnational) has undermined any hopes that the ANC had of heavily subsidizing the costs of urban upgrading for the urban poor (Ruiters and Bond 1996). With only 100 billion Rand available to the national government over a ten year period to pay for all of its RDP-related projects, and urban upgrading alone conservatively estimated to cost 60 billion Rand over the same time period (Naidoo 1995: 11; GSA 1994b: 14), the ANC has little choice now but to charge urban residents the full (or near to full) costs of new infrastructure and service delivery and/ or to rely on the private sector to provide the new...
services that are required.

Not even the long anticipated 'peace dividend' that was expected from the amalgamation of notoriously fragmented and inefficient local governments in South Africa has made much of a difference to the monies available for redressing the inequalities of the apartheid city. Strong resistance from white rate payers and corporations to increased property taxes, metropolitan governments that generally lack the legislative clout to reallocate resources, and old-school apartheid bureaucrats locked into old-school planning and allocation of municipal resources have all made it very difficult for democratically-elected local governments to free-up public funds for upgrading purposes (Mahin 1995; McDonald 1995, 1997).

One group of fifty businesses in Sandton (the popular new suburban venue for corporate headquarters in Johannesburg) has even tried to take the metropolitan government to court for violating what they call their "constitutional rights to equality" after the new local government increased their (low) tax rates by 300 percent while rates for residents in neighbouring townships have gone up by much less (Globe and Mail, 7.5.97). Although a high-court judge threw this particular case out of court on the grounds that there is "dire need for urban upgrading in Soweto and other surrounding townships" it is an on-going struggle in South African cities to make even the most modest of transfers in municipal wealth and assets.

This is not to say that big business or white South African rate payers are completely off the hook with respect to paying for urban upgrading. There are increases in taxes to business and reallocations of resources from white suburbs and these are making a difference in the townships. The point being made here is that the bulk of the funding for urban upgrading is going to come from the urban poor themselves - and to a lesser extent the less mobile sections of the middle class - through charging full costs for service delivery and by having the private sector responsible for much of the new infrastructure and service development.

The ANC acknowledges these fiscal and political realities and has begun to look for ways to meet their infrastructure targets through "increasing the access of local authorities to private sector finance", either by "loans repaid through the tax base or direct private sector investment in local government services, i.e. equity" (Naidoo 1995: 10). The private sector is now expected to "constitute a major source of funding" for infrastructure investment in the country, and Naidoo points, as an example, to 400 billion Rand in contractual savings institutions in South Africa that could be mobilized for such purposes.
It would even seem that the ANC - or elements thereof - have embraced the fiscally conservative position in which the party now finds itself, with the authors of the Urban Development Strategies Discussion Document announcing that the "government has great confidence in the private sector's ability to identify opportunities and secure an efficient allocation of resources" when it comes to urban infrastructure investment (GSA 1996: 30). This particular document has not gone unchallenged within government circles - a fact which is reflective of the on-going debates in the ANC-alliance over the role of the private sector in general - but the document does illustrate the dramatic shift in ANC rhetoric from the 1970s and 1980s when the policy focus was one of socialization and redistribution.

Although the ANC would appear to have little choice right now but to rely on the private sector for its urban upgrading objectives - a choice which is due in large part to the continuous threats from domestic and international capital of massive capital flight if the government were to opt for a stronger redistribution platform - it is nevertheless disconcerting to see the extent to which neoliberal ideologies of urban renewal have permeated post-apartheid discourse. The aforementioned Urban Strategies document is one example of how far the new ideologies of change have affected policy making in the country, but one also finds tacit acceptance of this new hegemonic discourse in 'progressive' South African journals and newspapers, as illustrated by a reference in the Mail and Guardian (13.5.97) to the "seemingly logical" decision by the ANC-dominated town council in the city of Nelspruit "to seek private-sector involvement in extending water services to former black areas".

I do not have the space here to discuss the complex political processes through which these new hegemonic ideologies have been created in South Africa (for an extended discussion of this issue see O'Meara 1996), but I would argue that the battle for urban renewal would appear to have swung in favour of big business in the country. I would also argue, along with David Harvey (1989: 66), that in times of crisis "capitalists are forced to some degree to constitute themselves as a class - usually through the agency of the state - to find ways to channel investment into...the quantitative and qualitative improvement of labour power". Although the state is itself a "field of active class struggle" and government decisions "by no means fit exactly with the requirements of the capitalist class", policy decisions on urban infrastructure in South Africa have clearly been heavily influenced by the corporations, politicians and bureaucrats that have tried to shape this neoliberal discourse for the last two decades.
ENVIRONMENTAL IMPLICATIONS

What, then, are the environmental implications of this urban restructuring? I will discuss three of the most important areas of concern: environmental justice; the fragmentation of urban environmental services; and urban consumption and sustainability.

Environmental Justice
As I have already emphasized, material living conditions in the townships and squatter camps of South Africa will improve over the next decade, and so, by default, will the living environments of the urban poor. These improvements represent important environmental gains for the country and a step forward in achieving the new government's commitment to providing all South African citizens with "an environment that is not harmful to their health or well-being". But what kind of environmental justice is it where the urban poor - millions of whom can barely afford to feed and clothe themselves - have to pay the costs of addressing the environmental injustices of apartheid themselves? The urban poor can, and should, be expected to take some responsibility for urban upgrading in their areas - community involvement in upgrading initiatives is, after all, essential to the success of any such initiative and paying for services is an important part of civic responsibility - but to expect the urban poor to shoulder the bulk of these costs themselves can hardly be considered just.

This question of subsidization is particularly salient when one considers the degree to which white South Africans, and white South African capital, have benefitted from state investments in urban infrastructure in the past. Billions of Rand were poured into providing some of the best facilities in the world in the well-to-do suburbs and white industrial areas under apartheid, with investment per capita in the white suburbs in the 1980s exceeding that of countries in Europe and North America (Ahmad 1995). For white South Africans and capital now to call for harsh limits on infrastructure subsidies is not only morally bankrupt, it is blind to the history of urban development in white areas - a practice all too common to the history of capitalism and its ruling classes, unfortunately.

Even the call for 'community participation' is disturbing from the point of view of environmental justice. Questions of what constitutes a 'community' aside, the potential benefits of community participation can easily degenerate
into a situation where the poorest of the poor are expected to do the dirtiest jobs - risking their own health and safety even further in the process. Disposing of decades worth of waste, cleaning blocked sewers and bagging dead rodents can be extremely dangerous and unhealthy work and should not be done without adequate training and safety equipment (McDonald 1994). Besides, it is highly unlikely that white South African citizens will be expected to clean up their own neighbourhoods - they can simply pay to have it done - so why should black South Africans be expected to perform such potentially dangerous and degrading work in the name of voluntarism?

Most important of all, perhaps, is the potential for large sections of cities to be effectively 'red-lined' from an urban upgrading programme. If the private sector is expected to "constitute a major source of funding" for urban upgrading in South African cities what is there to ensure that they will invest in areas where they see little potential for profit? Various levels of government can, and will, provide funding and legislation to ensure that there is basic investment in the poorest parts of cities but the risk of further marginalizing townships and squatter camps that are not essential to the needs of capital is a very real and frightening one. And with lots of experience thus far with South African banks refusing to make mortgage loans to the poorest of the poor - despite ANC efforts to guarantee loans - the potential for red-lining in other areas of infrastructure and service delivery is high indeed.

**Fragmentation of Services**

Another concern with the heavy participation of the private sector in the development and delivery of infrastructure and services to the urban poor is a further fragmentation of what is already a highly fragmented service delivery system in South African cities. In the city of Cape Town, for example, there were 25 municipalities and 69 decision-making units before the amalgamation of the city into one, post-apartheid metropolitan area in 1995 (LGDB 1995). During apartheid there was virtually no coordination between any of these different municipalities with respect to service delivery and there has yet to be any significant rationalization of these services. The introduction of a large number of private service suppliers in Cape Town at this point in time will only make the existing matrix of services even more chaotic and difficult to manage - and in a climate of relatively lax environmental standards and extremely limited governmental capacity to monitor private firms, environmentally sensitive activities such as the disposal of waste and the treatment of sewage have the
potential to become more problematic than they already are. To make matters worse, there are several municipalities (the important Afrikaner town of Stellenbosch being one of them) which managed to bargain their way out of the central metropolitan government in Cape Town and are under no obligation to coordinate their service plans with the Cape Metropolitan Council (LGD B 1995). The fact that these two legislative bodies share one of the most sensitive watersheds in the country is a cause for real environmental concern.
How Much Consumption is Enough?

We must also ask ourselves one of the most pressing of all environmental questions - how much consumption is enough? Clearly there is a need to increase consumption on the part of black South Africans and I am not suggesting for a moment that the urban poor be denied the opportunity to enjoy the benefits of an advanced industrial economy - to do so would not only be hypocritical given my own access to consumer products but would fail to recognize the fact that under-consumption is the real environmental enemy in South Africa's townships and squatter camps. Nevertheless, over-consumption in the long run is a real environmental concern as well given the consumption trajectory that South African capital would like to see evolve in the region. With millions of new consumers set to come on stream in the next five to ten years in South African alone, and with impending shortages of basic resources like water and electricity already a real concern, it is unclear how this growth is going to be sustained in an environmentally sustainable manner.

Moreover, there are already concerns with the consumption patterns of white and otherwise well-to-do South Africans. South Africa produces a full two percent of all global green house gas emissions, and this with two-thirds of the country not even connected to the electricity grid (Eberhard and van Hooren 1995)! White South Africans consume the overwhelming majority of the country's key environmental resources and with the privatization of services and the entrenchment of a demand-led service structure there will be little scope for curtailing the consumption habits of the property classes.

It has been estimated, for example, that 40 percent of Cape Town's water supply goes into watering white suburban gardens while one-third of the city's population does not have adequate access to potable water (Gasson 1993, WCEDF 1995). Given that Cape Town is facing severe water shortages by as early as the year 2000 (Quick and Pistorius 1994) how will city authorities deal with the fact that hundreds of thousands of new consumers will be making new demands on these limited supplies? The ANC can ask, as Jay Naidoo (1995: 6) has done, whether it is right to be watering gardens in the white suburbs while homes in the townships have no water at all, but the experience with reallocating municipal resources in South African cities thus far would suggest that it will be very difficult to change, or challenge, white consumption patterns. Moreover, there is little incentive for private sector firms to curtail the consumption of the products that they sell and make money from. Increased tariffs will have some effect on consumption of resources like water and electricity in the suburbs but
the emphasis on prices and letting market forces determine actual demand for a product fails to recognize the moral, economic and environmental imperative for a more deliberate and equitable distribution of consumption in South African cities.

CONCLUSION

In conclusion, environmental debates in South Africa can be said to have taken ‘three steps forward and two steps back’. I use this analogy to imply that environmental discourse in South Africa today is much more informed and progressive than it was less than a decade ago, but legislative and rhetorical gains must be seen in light of the limitations placed on change by the interests of large scale capital in the country - interests that are concerned primarily with the productive and consumptive potential of South African cities, and with off-loading as much of the costs of urban upgrading as possible onto the urban poor themselves. In crude terms, millions more South Africans will have concrete floors, light bulbs and access to clean water in the future, but one can also imagine these healthier, more efficient citizens as little more than grist for the capitalist mill as South African cities become better production and consumption machines.

These are, perhaps, somewhat abstract (and cynical) interpretations of urban environmental change in South Africa, but it is important that environmental activism in the country be informed by such theory and that it be cognizant of the larger socio-economic forces shaping the environmental future of South African cities. It is in this spirit that this article has been written.
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