

Sketching the Environmental History of Msunduzi (Pietermaritzburg and Environs)

Marc Epprecht
Development Studies Program
Queen's University, Kingston, Canada
epprecht@post.queensu.ca

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Introduction

Efforts to develop Msunduzi as a unified, integrated, prosperous and healthy city need to build upon a solid understanding of its historical geography. Why is it that poor health, poverty, and environmental stresses have come to be concentrated in certain communities as the city industrialised? Such a history could help us to gain a better understanding of the environmental limits to economic growth and development. As well, it could shed light on social and political factors that have contributed to environmentally unsustainable decisions and practices in the past. The hope is that, armed with better knowledge about the past, we may be able to avoid repeating similarly unsustainable choices in the present and future.

Periodizing the history of the environment and development in Msunduzi

Historians of Pietermaritzburg often paid only scant attention to the non-white population in the surrounding townships, farms, reserves and other settlements. They also wrote as if human achievements and conflicts played out against a flat, irrelevant, or steadily “improving” natural environment. The narrative flows like “Nice forests replace barren grasslands. Productive farms replace wilderness. Flowering gardens and tree-lined streets replace a choking dust bowl. The hum of industry brings prosperity. Democracy, social justice and high environmental management ideals triumph over racial segregation, apartheid and careless pollution.”

There is much truth in this progress narrative but it also misses a great deal. The progress narrative may, in fact, blind us to serious costs that have been passed on to the environment that in turn repay us with poorer health and/or quality of life. Pollution is the most obvious such cost. Its “repayment” is spread unevenly around the city. The worst impacts of degraded or unhealthy environment tend to be concentrated in those areas that had been most disadvantaged during apartheid.

Indeed, there are many who argue that living conditions and health for the poor, for the majority of blacks, and for black women and children in particular, have actually gotten worse over the past twelve years of political freedom and statistical economic growth. The fact that high environmental ideals are now entrenched in the national constitution means little to people living in the over-crowded, unserved informal settlements on flood plains or huddled on the fringes of busy highways.

One way to challenge tired and misleading stereotypes about progress is to periodize history in a way that highlights decision-making around and impacts upon the environment. “Periodize” simply means to organize historical time in periods defined by a clearly dominant tendency, a way of thinking or a style (the “roaring twenties” or “apartheid era,” for example). In the case of Msunduzi, keeping primary focus on the environment results in a periodization that de-emphasizes the usual political changes and struggles in favour of significant changes in the way people related to the physical world they inhabited. Bearing in mind that different parts of the city developed at different paces, it is nonetheless possible to sketch five rough periods of time in which a clearly dominant tendency can be identified.

1838 to roughly 1900: “ecological revolution,” during which time white settlement radically transformed the natural environment (for example, through cutting down indigenous forests, ploughing up virgin soil, and introducing exotic species like wattle and gum). White settlement also stimulated the development of African communities like Edendale and Zwartkop (Vulindlela), which initially enjoyed prosperity by expanding agricultural production and livestock holdings.

1900-1942: “the development of underdevelopment,” during which period racial politics consolidated the most harmful environmental and health impacts of ecological transformation in African communities (soil erosion, water pollution, and over-crowded housing, notably). The process of underdevelopment unfolded in quite different ways in the distinct communities according to many different factors (freehold versus communal land tenure, for example, topography, major economic activity or crop, restricted borders, gender and class relations, and so on). At the same time, Pietermaritzburg city planners began to clean up and “whiten” the city proper by imposing controls over water pollution and animal husbandry, and by removing Africans to the fringes of the city. These policies eventually led to a multifaceted

crisis of economic decline, social breakdown, environmental collapse and health problems in the African communities. Political pressures to fix the problems that clearly arose from racial segregationist and patriarchal capitalism grew to compel a new approach to address them, beginning with the proclamation of Local Health Commissions.

A key aspect of this underdevelopment process was that supposedly objective scientists, historians, geographers, and other scholars writing about the Pietermaritzburg area played a role in promoting or normalizing racial politics and the impoverishment of African communities. It is sobering to recall how respectable opinion could be complicit in erecting structures of inequality, injustice and ill-health. As late as 1957 even ostensibly liberal reformers continued to place primary blame for African poverty on Africans themselves and to minimize the role of white men's greed, duplicity, and incompetence.

1942-1960 "second colonial occupation" involving stepped up state intervention in development through so-called betterment schemes, social welfare and a wide range of other projects and programs intended to improve the quality of life for the majority black population. Despite often paternalist and blaming attitudes towards Africans, and growing pressure from Pretoria to impose apartheid planning, the city and province achieved major successes in this period, principally through *de facto* municipal government called Local Health Commission. While the fundamental problem of poverty and overcrowding in much of Pietermaritzburg's "black belt" remained, the supply of clean piped water, hospital facilities, and new housing estates in Edendale and other areas under Local Health Commission control brought disease and infant mortality rates down by the early 1960s almost to as low or even lower than those found in the Coloured and Asian populations of the city. Controlled industrialization was intended by city planners primarily to create enough good-paying jobs to enable African communities to sustain or better development achievements. Although somewhat constrained by apartheid policies (and white public opinion) the new industrial zones challenged the racialized historical geography in potentially positive ways (M'kondeni and Willowton in particular, close to historically white parts of the city).

1960-1990 “demented industrialization.” Despite the progress of LHC era, neither the state nor private enterprise was able to keep up with demands. Frustration grew as it became obvious that the new industries were not absorbing African unemployment or solving simmering discontent in African communities (the opposite, in fact, as evident in riots and beer hall protests in Sobantu from 1959). This led city council to turn to a new strategy of promoting rapid, less selective industrial growth. The period of 1985-1990 in particular saw the number of factories in the city almost double, and the number of vehicles commuting across the city to expand even more. Yet success in attracting new industry quickly had several negative impacts including dramatic increases in pollution and the deterioration of housing in African communities through over-crowding. Failure to resolve political tensions lead to violence, and the breakdown of municipal services. Indeed, some of the greatest achievements of the 1950s were compromised in the 1980s by poor management and low morale resulting, in the case of the Edendale Hospital, in horrific spills of medical waste and sewage almost directly into the Msunduzi River. Virtual civil war in parts of Edendale brought waste collection and anti-litter campaigns to a halt while creating a tide of refugees who settled on floodplains and dangerously sloping lands.

1990-present “*plus ça change...*” (the more it changes, the more it stays the same). The crisis of the late 1980s eventually led to a period rapid political transition towards democratic government. This was followed by the entrenchment of high ideals of social justice and environmental sustainability in law, in planning policy and in the national constitution. At the same time, however, extremely harmful practices and planning were also put in place or encouraged as a means to patch up the problems inherited from the apartheid regime. The latter includes so-called RDP housing for the poor that is degradingly small, unhealthy, far-removed from centres of meaningful economic activity, and often contributing to erosion and waste pollution. The celebration of consumerism and urban sprawl for the new black middle and upper classes has also been accompanied by an uncritical faith in growth as measured in numbers (numbers of investment dollars, of automobiles sold, of Gross Domestic Product, of housing units built). More difficult to measure health and quality of life indices get overlooked in this analysis. Thus, while life is clearly more comfortable for the minority, diseases like TB and childhood diarrhoea are increasing and life expectancy is declining for the majority population. Even conservative economists

have begun to warn that the discrepancies and contradictions of the present “boom” are not sustainable politically, socially, or environmentally. How can the young generation in the former townships be educated to cherish the environment when so many are orphaned and impoverished by HIV/AIDS among other devastating impacts of unequal growth?

Themes in Modern Maritzburg Environmental History to the Present

Five major themes emerge from the above history: bad governance, infrastructural and technological change, sprawl and inefficiency, environmental consciousness and activism, and contradictions between stated environmental ideals and pro-growth policies. All hold important implications for contemporary thinking about municipal development.

a. Bad governance allowed poor farming and grazing practices, waste disposal, and unregulated construction to go uncorrected in Edendale for so long that large parts of a once-thriving community were turned into pestiferous slums. Indeed, for nearly 100 years Edendale had no functioning government at all. Numerous attempts by the residents to gain powers to enforce environmental, health and housing regulations were rejected by different levels of government time and again from the 1880s right through to 1994. The City of Pietermaritzburg was particularly skilled at avoiding responsibility for the resultant mess and protecting its ratepayers from the costs of clean up.

Bad governance was implicit not only in the lack of representative government for the majority of people prior to 1994, by which decisions about entire populations were made without or in spite of their input, and by which often blatantly racist, sexist and other discriminatory views and policies could not be challenged. Bad governance was also manifest in the hotchpotch of local authorities. By 1980 no less than 10 distinct local authorities held jurisdiction in the present area of Msunduzi, some governed by elected bodies, some by local bureaucrats, some by “traditional” chiefs, and some by far-away officials in Ulundi or Pretoria. They had little interest or ability to co-ordinate environmental policy between them, let alone to intervene in environmental management concerns across jurisdictional boundaries. This resulted in sometimes stunning ignorance or callousness by responsible authorities. To give but one example, in June 1989 a sewer pipe broke at Edendale Hospital, spewing

thousands of litres of faecal matter into the Msunduzi River. The director of Umgeni Water at the time calmed white citizens' fears in Pietermaritzburg by claiming "Only those in rural areas who take water from the river will be affected."

Edendale Hospital is five kilometres upstream from Pietermaritzburg.

In other cases, bad governance resulted from interference from a higher level of government against local knowledge and wishes (and vice versa). Some of the most blatant examples of this occurred during apartheid, when central government protected what it regarded as strategic industries. Maritzburg officials were thus actively prevented from investigating and punishing two of the city's worst polluters through to the 1970s (South African Railways and Coronation Bricks). Central government also created endless difficulties for the city by prohibiting the expansion of the black township Sobantu and by imposing land use restrictions and housing specifications that delayed the development of new townships.

But sometimes obstruction worked the other way and can be traced back in time before apartheid. The case of Oribi hospital in the 1940s is a sad example. Here, the province wanted to convert the unused military base to serve the African sick, and particularly to deal with rampant TB in LHC areas. The city refused on the grounds of protecting the white residents in surrounding suburbs.

Bad governance ultimately had the effect of politicizing what may otherwise have been non-controversial. For example, science-based betterment and public health campaigns may have made sense in rational terms (culling cattle, banning donkeys, reticulated water supply, putting on condoms, for example) but Africans sometimes resisted those programs because they were identified with white domination or "puppet" traditional chiefs. Conversely, political opposition to LHC paternalism or apartheid by Africans may have hardened hearts in city council against them. Whites' anger against "ungrateful Natives" may have contributed to decisions that posed the environment as weapon against African communities. A possible case in point would be the city turning a blind eye to the almost fatal pollution of Bayne's Spruit by industry in the 1980s as punishment of Sobantu "agitators."

b. Infrastructure and technological change

Several infrastructural developments and technological advances in Pietermaritzburg's history were unquestionably positive in health and quality of life terms. Henley Dam, for example, supplied some of the naturally cleanest water in the

nation to the city and to growing network through Vulindlela. Similarly, the tarring of roads from the late 19th century immeasurably improved the quality of life for citizens who had previously lived with the effects of choking clouds of dust for much of the year. Another major public health victory was achieved in the 1920s when, after the discovery of a connection between cattle and enteric fever, dairies and privately owned cattle were restricted within the city limits. Where enteric fever had been the major killer of whites up to that time, by the 1930s it had been reduced to insignificance in that population.

Other innovations were of mixed benefit, however, and awareness of that history could help us to guard against naïve faith in technology as a solution to social or political problems. Going back to the region's first economic boom in the 1850s, for example, the almost universal adoption of the plough by African farmers did enable much increased production and a period of considerable prosperity. Yet on the other hand, ploughs cut more deeply into fragile soils than traditional methods of hoeing. The long-term effect was to speed up the natural process of soil erosion, which eventually destroyed the peasant farming economy and exposed settlements to deadly flash floods. Similarly, new exotic crops, trees, and animals sometimes brought direct benefit to poor communities. But in other cases they created new environmental and health harms. The wattle, gum, and pine trees that cloaked the bare hills of Natal, notably, often resulted in the dispossession of African "squatters" or their employment in forestry, among the lowest paying industries in the country.

In modern times there are several cases where apparent technological progress against pollution in fact masked new and possibly worse problems. The phasing out of highly visible pollution from steam locomotives in the early 1970s, for instance, was widely hailed at the time as a huge improvement. But the diesel engines that replaced steam produced less visible pollutants whose more harmful effects are only now beginning to be understood. The proliferation of automobiles and kombi taxis was likewise commonly unquestioned as a liberating efficiency in personal transportation when compared to public transportation. Yet it is now understood as contributing both to highly toxic pollution (such as lead poisoning) and, through sprawl, to social breakdown in once-cohesive communities.

Even infrastructure and technology intended to manage waste or to reduce environmental dangers can have unanticipated harmful impacts. Hence, the complex network of interconnected sewers under the Willowton industrial estates makes it

almost impossible to trace sources of illegal dumping through the sewer into Bayne's Spruit. Another case of promising technology undermined by lack of proper maintenance and management is the rapid deterioration of the award-winning main municipal dump. Designed to compact solid waste and co-generate electricity from the methane it produces, the dump is now prone to leachate pollution, uncontrolled gas leaks, and spontaneous combustion that intermittently spews clinging black smoke onto Sobantu and other neighbourhoods downwind.

c. Sprawl and inefficiency

Sprawl was inherent in segregationist/apartheid policies, cultural preference, and the workings of the free market. Segregation strictly limited the number of Africans who lived within walking or bicycling distance to their place of employment. The majority depended on buses and later kombi taxis to commute, commonly 20-30 kilometres a day. Non-white communities were physically separated from the white parts of the city by broad green belts and highway barriers.

This geography was reinforced – and often justified - by strong cultural preferences among both whites and blacks. The former aspired to large garden-y properties in the inner suburbs and the latter to detached homes and space to grow mealies or keep animals. Indian and Coloured housing, which had originally included high density “barracks” in town, also conformed to the low-rise detached model when the Group Areas Act was applied to them in the 1960s. Reflective of this is the striking rarity of high or mid-rise dwellings outside the central city and near the university. Rather than building up, the growing city has tended to move outwards or up steep slopes in single storey structures. The real estate market encourages this tendency, as land is generally cheaper on the fringes of the city. As a result, the population of Msunduzi is now spread over an area roughly as big as Toronto, a city with double the population served by a dense, efficient network of public transportation. Msunduzi's population density (about 1100 people per square kilometre) is even lower than Los Angeles (3600), the big American city most closely identified with unfettered sprawl, and even other South African cities such as Johannesburg and Durban (1600).

A sprawling urban geography creates a huge imposition of time and cost on the working poor. It is a major cause of vehicular pollution, and inflates the city's costs to provide and maintain an over-stretched infrastructure. Long stretches of

pipeline and isolated standpipes are vulnerable to leakage and “poaching.” Paradoxically, sprawl is also a motivating factor for over-crowding and informal housing closer to the city. In the apartheid era this primarily took the form of jerry-built extensions to existing homes or backyard shacks in the formal townships. After 1990, however, the progressive lifting of restrictions on African mobility led to a proliferation of informal structures on unserviced sites even within the city. While such informal densification may eventually result in relatively stable and upgraded communities, the more commonplace result has been unsanitary hovels thrown up in polluted or dangerous locations on the floodplains or steep slopes. Sanitary conditions in the Ash Road (Jika-Joe) settlement, for example, may be worse than those in Edendale in the 1940s but people prefer to live there when the alternative is a bleak field of boxes an hour or more’s commute away.

There are gender implications to sprawl. In those parts of the municipality where water must be collected from standpipes or distant springs, for example, it is women and girls who are primarily affected through wasted time, repetitive lifting injuries, and heightened risk of sexual assault. The high costs of electricity implicit in serving such scattered settlement also redound against poor women’s health as they often continue to use money-saving fuels to cook, exposing themselves in the process to high levels of indoor pollution. It is women, moreover, as primary caregivers, who have to commute long distances into town to shop. Even basic domestic items are typically not available except at inflated price in the under-serviced townships and informal settlements.

d. Environmental consciousness and activism

Education and awareness have long been seen as crucial to improving protection of the environment. Anti-waste and anti-litter campaigns directed at citizens have thus been a part of municipal policies for at least sixty years. Citizen watchfulness and activism have also been important to stopping environmentally harmful projects. Public pressure was key to tightening up the city’s air pollution controls in the 1970s and to defeating a proposal to turn Darvill Bird Sanctuary into a new industrial estate in the mid-1980s. GREEN, the Greater Edendale Environmental Network, also played a critical role in shutting down one of the city’s worst polluters in 2000, the Edendale Tannery whose waste ponds were so toxic that cattle that strayed in died of skin-poisoning or burning.

We need to be aware, however, that there have often been deep divisions and short-sighted or narrow class interests behind environmental protection initiatives. The modern environmental movement in fact grew out of a conservationist attitude that tended to blame Africans for the destruction of the wilderness and to pose whites as the best protectors of what remained. In the 1940s there was even a movement to clear Edendale of all its African population in favour of white settlers who would supposedly manage the land better. The Darvill Bird Sanctuary, to give another example, had been the site of a long-standing albeit very poor African freehold settlement called Hollingwood. In the name of health and environment, hundreds of Africans were forcibly removed in 1967 and dumped at the far western end of Edendale (New Polltax Farm).

Whites were not the only ones to use environmental and health arguments to press for the expansion of racially defined privileges. A vocal faction of black Africans within Edendale in the 1940s, for example, opposed public health and land reclamation work on the grounds that the Local Health Commission was not actively seeking to evict Indians and Coloureds from the area. Conservation initiatives had a lower priority than the desire to make Edendale an exclusively African community.

In other cases, initiatives by government to reduce city pollution were directly thwarted by business and citizen opposition. White business and professional men formed a lobby group to influence city council as early as 1946. By the end of the 1950s it had succeeded in overturning council's historically cautious attitude to attracting new industry. Another important case in point was the 1980s proposal to re-route the N3 highway. The N3 was originally conceived as a by-pass but now bisects the city. It creates both a corridor of emissions and a ceaseless din of traffic (estimated in 1989 at sixteen times "acceptable" levels of noise pollution). The proposal to divert trucks around the east of the city was defeated, however, at least in part due to the strength of the opposition by residents in Northdale, who feared the potential impact on property values in that neighbourhood, and by downtown businesses who feared the potential loss of tourist traffic.

e. Contradictions

The above point brings us to a dispiriting observation. South Africa in general and Pietermaritzburg in particular have long had good laws and principles to guard against environmental degradation and pollution. As early as 1953 the city established

an industrial effluent tariff, by which companies were required to pay for cleaning up the added burden they imposed on the water supply. The clear evidence, however, is that these laws and principles were predominantly honoured in the breach. It was not until 1990 that the city secured a conviction against an industry for the flagrant violation of anti-dumping bylaws. Industry was estimated around that time to be paying only three percent of the total operating costs of the Darvill water purification plant while contributing nearly a quarter of the load.

Many factors contributed to the failure to match ideal and practice, including lack of capacity and resources, confusion over jurisdiction and responsibility, lack of environmental consciousness or education among citizens, and inability to clearly identify sources of pollution. Citizens who complained in the 1970s could not even agree which company was producing the black smoke over the city, let alone who was illegally and secretively dumping waste water or litter.

There is also some evidence to suggest that city officials simply did not take the matter of pollution seriously even after it had entered public consciousness. The Medical Officer of Health in the early 1970s, for example, prefaced his report on air pollution in the city with mocking comments about complaints of air quality received from people who smoked cigarettes. Much of the city's anti-pollution work in the 1970s in fact involved appeasing irate citizens rather than the pursuit of polluters. More recently, doubts have also been raised about the Environmental Impact Assessment process as a cloak behind which powerful business and government interests can press ahead with their pet projects. Indeed, top government officials and cabinet ministers have sometimes expressed openly hostile attitudes to the environmental lobby, suggesting that patience is running out for the delays and compromises that thorough EIA's imply. When the national Minister of Housing says "we can no longer be held hostage by butterflies' eggs" (Lindiwe Sisulu, March 2006) it is an open invitation for environmentally unsustainable and potentially detrimental projects to be rushed through to development.

Reluctance to enforce environmental laws and policies is to some extent implicit in divergent views about the meaning of sustainable development that are written right into those laws and statements of principle. The different approaches have sometimes been described as "green" (ecocentric or conservationist) versus "brown" (environmental justice or human-centred). White city officials historically tended to articulate a green agenda (more parks, litter control, better education on the

benefits of a clean environment, for example). Others, however, were primarily concerned that enforcing the environmental laws would result in industry relocating or shutting down. Unemployment, rather than lack of green space, was the major threat to environmental health in this view. Indeed, this is precisely what happened in the case of Edendale Tannery, which declared bankruptcy shortly after receiving notification from the city that it needed to clean up its mess. The mess remains unattended. Capital Oil Mills' threat of going into liquidation in 1996 also explains why the city was forced to accept a token "admission of guilt" fine of three hundred rands (R300) after the company had been caught dumping thousands of litres of vegetable oil into Bayne's Spruit.

On a more encouraging note, tensions between green and brown or between local and national priorities could sometimes be resolved to produce unexpectedly positive outcomes. It bears remembering, for example, that homes built under apartheid in Ashdown and Imbali townships in the 1950s were significantly larger and afforded more privacy and ventilation than much of the post-1994 low-cost housing, in large part because of the determination of local authorities to resist pressures from Pretoria. For those who have travelled in former "migrant labour reserves" elsewhere in the region (such as Lesotho or parts of Ciskei), it is also immediately obvious that soil erosion and deforestation in Vulindlela are not as bad as they could have been. Of course this is not to be nostalgic about apartheid or authoritarian betterment schemes, but simply to alert us against stereotyping that era in blanket denunciations. Given that the green/brown divergence of opinion remains to the present, there may be valuable lessons to be drawn from the experiences of local planning that resisted the over-arching racist or development-at-all-costs expectations of the 1950s-80s.

Conclusion

None of the above points the way to a clear, straightforward strategy to achieving the principles of environmental sustainability and the right to health that are enshrined in the national constitution. On the contrary, environmental history warns against clear and simplistic solutions and may, at times, make the cause seem hopeless. The history sketched out above nonetheless might prove useful to contemporary debates, at least to the extent that it allows two major conclusions. First, faith that a pro-growth economic strategy will automatically or necessarily reduce stresses on the environment and human health by creating jobs, alleviating poverty,

and developing cleaner technology is misplaced. These things may happen. Judging from history, however, unless environmental concerns are put front and centre in economic policy then growth is just as or more likely to result in greater pollution, environmental degradation, and marginalized, impoverished communities at heightened risk of ill health.

Second, faith in the ability of science, environmental education, and goodwill to solve environmental problems can easily be misplaced. All of these are critical to the success of initiatives to improve the environment and human health. As has happened abundantly in the past, however, science, education, and goodwill can be over-ridden or co-opted to serve the narrow interests of politically and socially powerful groups. The interests of marginalized groups, perhaps above all African women as primary care-givers to African children, thus need to be put front and centre in any research strategy or community organizing against environmentally harmful practices. If not, the research and organizing will be weakened to withstand pro-growth pressures.

Environmental history could be an important ally or tool for community organizations and local authorities in their efforts to promote sustainable development, improved housing, and human health. Establishing the facts about the enduring damage done to Msunduzi's environment, including who or what bears primary responsibility for that damage, and how it affects peoples' health, could strengthen our ability to imagine alternatives for the future.