

Current sustainability challenges of South Africa
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- The map: the territory since 1910 (Union of South Africa; Land Act 1913)
- RSA prior to and since 1994 (late-apartheid: post-apartheid)
- Underlying principle thence and prevailing praxis hence:
institutionalised discrimination and unequal access to sources of living

Sustainability = «ecological modernisation» / «environmental justice»?
«growth» / «development»; quantitative/qualitative
Bill of Rights: the Constitution (1996)

Gear (Growth, Employment & Redistribution Strategy)
RDP (Reconstruction & Development Programme)

Challenges: the apartheid-geography;
water;
energy;
waste;
industrial and mining pollution

Challenge facing us: not a mere academic exercise, but a committed contribution towards earnest questioning and challenging of the prevailing neoliberal approach and promoting more effective policies and initiatives towards **sustainable** development.

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OUTLINE:

The idea of `sustainability´ was redefined in lowest-common-denominator intergenerational terms by Gro Harlem Brundtland's World Commission on Environment and Development in 1987: `development that meets the needs of the present **without compromising the ability of future generations** to meet their own needs´. But other thinking about sustainability, especially by environmental

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economist Herman Daly, takes the argument further.¹ Daly's normative view was that *'We should strive for sufficient per capita wealth - efficiently maintained and allocated, and equitably distributed - for the maximum number of people that can be sustained over time under these conditions'*.

Daly offered a tougher definition than Brundtland in order to highlight the difference between 'growth' and 'development' in a context in which the earth's capacity to act as a 'sink' is a physical ecosystem limit to the absolute size of the global economy. Daly's definition of sustainable development is 'development without growth beyond environmental carrying capacity', where development means *qualitative improvement* and growth means *quantitative increase*. Using this definition around the World Bank, Daly found, 'just confirmed the orthodox economists' worst fears about the subversive nature of the idea, and reinforced their resolve to keep it vague'.

Daly proposed at least four operative policy recommendations for both the Bank and governments:

- o Stop counting natural capital as income;
- o Tax labour and income less, and tax resource throughout more;
- o Maximise the productivity of natural capital in the short run, and invest in increasing its supply in the long run; and
- o Move away from the ideology of global economic integration by free trade, free capital mobility, and export-led growth -and toward a more nationalist orientation that seeks to develop domestic production for internal markets as the first option, having recourse to international trade only when clearly much more efficient.

... ..

Indeed, the environmental justice discourse is grounded in values so well recognised that they were included in the South African Constitution's Bill of Rights in 1996: *'everyone has the right to an environment that is not harmful to their health or well-being ... everyone has the right to have access to healthcare services, including reproductive health care; sufficient food and water; and social security ...'*²

Tellingly, however, that constitution also provided a caveat in mandating 'reasonable legislative and other measures that prevent pollution and ecological degradation, promote conservation, and secure ecologically sustainable development and use of natural resources *while promoting justifiable economic and social development*' (emphasis added), quite consistent with international sustainable-development rhetoric.³ And, underlining the central precept in neoliberal economics, it went on immediately to specify that 'No one may be

¹ Daly, author of the seminal *Steady State Economics* (1991, Washington, Island Press), worked with Robert Costanza to found the sub-discipline and journal *Ecological Economics*, and with John Cobb co-authored *For the Common Good* (1994, Boston, Beacon Press). The quotes below are drawn from Daly, H. (1996), *Beyond Growth: The Economics of Sustainable Development*, Boston, Beacon Press, pp. 220, 9, 88-93.

² Republic of South Africa (1996), *The Constitution of The Republic of South Africa*, Act 108 of 1996, Capte Town, s.24. a, s.24.1).

³ RSA; *The Constitution*, s.24.b, emphasis added

deprived of property' except in terms of law of general application, and no law may permit arbitrary deprivation of property'.⁴

Hence democratic South Africa is, even in its founding document, beset by conflicting discourses, the ramifications of which will be tested in the Constitutional Court for decades to come. Overall, the sense of liberal capitalist democracy prevails, augmented by 'second-generation' socio-economic rights beyond simply freedom of speech, association and the like. But if, in this discursive contest, even many environmental-justice advocates stop just short of questioning the roots of ecological damage within the capitalist mode of production, nevertheless this book attempts to do so.

The objective in outlining these discourses is to unveil what is extreme capitalist (in Summers' image), what is reformist (following Brundtland) and what is potentially revolutionary about environmental and developmental projects, policies and politics in South Africa. This requires that we understand neoliberal economic accounting, attempt to radicalise sustainable-development conceptions, draw upon the moral and political strengths of the environmental-justice movement, and work towards an eco-socialist conception of environmental management appropriate to South African conditions.

CHALLENGES:

1. Land use

Aspects of inherited land use that require stronger environmental management and indeed radical state intervention include the inequitable use of rural land, and poorly planned urban and suburban sprawl (mushrooming of informal settlements; shack dwellings; slums). The post-apartheid government has generally allowed matters to deteriorate.

1.1 The apartheid countryside

The settler-colonial and apartheid divisions of South Africa's land, codified by the 1913 Land Act and numerous subsequent policies and laws, left 87% of the land under white ownership and control, with millions of African people displaced to overcrowded 'bantustans'. People were simultaneously impoverished and crowded together, such that the degradation of Bantustan land was substantially caused by policies aimed at developing white commercial farms.

Given the private property protections afforded whites in the 1996 Constitution and a 'willing-seller, willing-buyer' land reform policy essentially designed by the World Bank, the scope for post-apartheid restitution and redistribution of land was severely limited. The first democratic government achieved only a handful of land restitutions, with fewer than 30 out of 40.000 cases were settled during the first government. Not even 1% of arable land was redistributed in a separate programme based on an individualised R16.000 grant, notwithstanding approximately 6% per annum turnover of land in the market and the mandate given the government in the RDP programme for a 30% land redistribution during 1994-99.

Partly as a result of politics, and partly as commercial agriculture became even more intensively overcapitalised, evictions of farm-workers increased dramatically at the time of the transition to democracy. Although tenant farmers

⁴ RSA; *The Constitution*, s.25.1

and farm-workers ostensibly have won greater legal protection since 1994, this has not helped them in practice. The Departments of Land Affairs and Agriculture lack **capacity** to intervene on behalf of rural black people, and, argue emergent farmer organisations, the **political will** as well.

The overindebted commercial farms also typically overproduce for glutted domestic and global agricultural markets, with *corporate agriculture* becoming more dominant as many **family farmers go bankrupt**. Corporate plantations exacerbate the commercial farming sector's **overuse of chemicals** and fertilisers, contributing to environmental decay.

1.2 Degraded land

For those millions of residents - half the rural population - who reside in the ex-bantustans, *overgrazing and inefficient farming methods* on peripheral land have contributed to **erosion, desertification and degradation of wetlands**. Black women are the majority of those adversely affected by environmental problems in the ex-bantustans. *Dependence* upon migrant labour remittances has only *increased* in the wake of more than a decade of political liberalisation.

Moreover, the expansion of traditional, oppressive conservation techniques to incorporate human considerations has been slow, and **ecotourism** controlled by communities is still extremely marginal.

1.3 Urban land

Apartheid-era urban planning was mainly attuned to the *expansion of suburban land use* associated with natural market forces in a context of severe income inequality. This left **large garden plots, with consequent wastage of water**, for white people and extremely densely-populated black townships often many kilometres away from black worker's jobs and from legal commercial and recreational sites.

The transport and pollution implications are enormous, as are the infrastructural costs and hence wastage of water and energy. Arable lands have been another victim of **encroaching suburban sprawl** (mushrooming of informal settlements; shack dwellings; slums), and in Johannesburg and other mining areas the rational use of land is made difficult by mine dumps, slime dams, sink holes and undermined surfaces.

Land speculation and warehousing has been widespread, **unhindered** by taxation or zoning measures. Post-apartheid planning has **offered rhetorical critiques** of these problems, but no substantial interventions aimed at offsetting the abuse of land that follows from economic power and market processes.

2. Water

Water management offers South African government and society possibly **the most serious contemporary challenge**. Amongst the main problems for environmental management are water *scarcity*, the *maldistribution* of water, *pollution* of water sources; other forms of *structural damage* to water ecosystems; and *substandard* or *nonexistent sanitation*. These are **apartheid-era legacies**, but in many respects they have been exacerbated by the application of neoliberal principles, policies, programmes and projects.

2.1 Access

Each of 42 millions South Africans have access each year to, an average, only 1.200 kl of available water, of which half already dammed. Ineffective and destructive uses of water are prevalent. Water scarcity is exacerbated by South Africa's erratic rainfall patterns, and the effect of **periodic droughts** on low-income people is particularly devastating, whereas wealthy white farmers traditionally gained access to **state compensation** during droughts.

Both domestic and regional geopolitical conflict over access to water has emerged repeatedly, with South Africa already draining **Lesotho**'s water and with controversial plans underway to tap other regional sources from **Swaziland** to Zimbabwe, and with Mozambique and Namibia adversely affected by South Africa's questionable border and cross-border river management. Meanwhile, **community protest against city councils** which cut off water supplies to poor people have become a common feature of local politics.

2.2 Unequal distribution

The distribution of South Africa's water across its own population is **even more unequal**, measured in class, population group and gender terms, than the distribution of income. *More than half* of the country's raw water is used for white-dominated *commercial agriculture*, of which half is considered to be wasted due to *poor irrigation techniques* and *inappropriate crop choice*. Another **quarter** is used in *mining and industry*. Around 12% of South Africa's water is consumed by households, but of that amount, more than half goes into (white people's) **lawns** and **swimming pools**, and *less than a tenth* is consumed by all black South African households.

Minimal water access is one reason for black South Africans suffering by far the highest **infant mortality** and water-related disease rates in all of Africa in relation to per capita GDP. Access by the majority is improving only marginally, notwithstanding massive cross-watershed pumping of water, for example, from Lesotho, done inexplicably in the name of development.

Moreover, in rural areas, the Departments of Agriculture and of Water Affairs and Forestry are making **only minimal efforts** to improve water access to black households and farmers, due to impending water shortages. In contrast to the main existing water supply systems -such as the Lesotho Highlands, the Thukela, Mkhomazi and Mzimvubu basins, the Orange River and Western Cape sources - **only a tiny fraction** of resources involved in irrigating white farmland in the recent past will now be spent on new schemes for `emerging` (i.e., small-scale black) farmers.

2.3 Pollution

Water ultimately destined for human consumption is defiled by largely unregulated discharges *from industry*, from *waste dump runoff*, and from *agricultural chemicals* and mine tailings/slimes dams. **Faecal pollution** is a problem in many urban areas due to the inadequacy of most low-income households' sanitation. Acid rain is extremely prevalent in coal-burning regions of the country. All these features of pollution increase **water treatment costs** and raise public health-risks to many low-income households dependent upon direct access to unpurified water.

2.4 Degradation

Water ecosystems suffer enormous water loss, soil loss and siltation through *commercial agriculture*, erosion caused by overcrowded rural areas, polluted aquifers (water-bearers/sources) from mining waste, the exhaustion of

aquifers(water-bearers/sources) from excessive irrigation, and drainage of wetlands and regions with high levels of commercial forestry, especially invasive-alien eucalyptus and pine plantations.

There are also problems in **declining natural flow-rates of rivers** due to cross-watershed pumping, resulting in increased migration and hence urbanisation pressure. Siltation of dam storage capacity costs hundreds of millions of Rand each year. Salination and waterlogging of land is also in evidence due to intensive irrigation.

2.5 Sanitation

Water-borne sanitation is available to **only around one third** of black South Africans, and excessive amounts of water – typically **13 litre per flush** – are used in virtually all middle- and upper-class areas. Although a solid-waste sanitation system is desirable, so too would universal installation of low-flush and dual-flush toilets, as well as low-flow showerheads, save water and cut sewage-treatment costs, while sanitation services could be extended to all households.

That this would contradict current policy on household affordability grounds, regardless of the social and ecological consequences, is unpardonable. **Dumping of untreated sewage into the sea** remains an issue. Mass **pit latrines** in urban and suburban areas remain factors in the spread of faecal bacteria.

3. Energy

Similar problems apply to energy: a reliance on and oversupply of **coal-generated electricity**; lack of equitable access amongst households along class/population-group lines, with particularly severe gender implications; and related inefficiency in use associated with apartheid geographical segregation and urban sprawl (mushrooming of informal settlements; shack dwellings; slums). With the exception of equitable access, these apartheid-era problems are very much worse today than they were in 1994, and access is being curtailed due to the drive to privatise electricity.

3.1 Dirty power

The strength of the coal mining industry fostered a reliance on electricity, with per capita consumption in South Africa *as high as it is in England* despite the fact that until recently **only a quarter** of South Africans had access to domestic sources. Most strikingly, **emissions of greenhouse gasses are twice as high** per capita as the rest of the world. In turn this reflects the importance of what has been termed the ‘Minerals-Energy-Complex’ - *South Africa's economic core, effectively run by a handful of mining-based conglomerates and friendly parastatal agencies* - which has traditionally accounted for **one quarter to one third of South Africa's GDP**, and which even in the 1980s and 1990s, as the gold price decline, was the most important and dynamic sector.

As one example of the power still invested in these large firms, the parastatal electricity company **Eskom justifies ignoring its own anti-pollution policies**. It has, for example, refused to install scrubbers at coal-fired stations, earning the wrath of even its own accountants, and explains its actions by **the need to generate cheap electricity** for export-led minerals- and metals-growth. As a result, electricity generation has been associated with *high levels of greenhouse gasses*, very high levels of acid rain, enormous surface water pollution, badly regulated nuclear supplies, and ineffectual safety/health standards in coal mines. Poor

planning two decades ago led to massive supply overcapacity – at peak in the early 1990s, 50% more than demanded – yet very little of the capacity has been used to provide low-income people with sufficiently cheap energy.

3.2 Access

The meagre electricity consumed by low-income households, i.e., about 3% of the total, comes at a high price in relation to the very low-cost supply of power to large corporate consumers, particularly the mines and minerals smelters. Corporations have enjoyed electricity at roughly **one quarter of the price** that low-income families in rural areas have paid. Hence even after more than a million households were added to the electricity grid during the 1990s, many could not afford to maintain consumption at levels sufficiently profitable for the state electricity company, relying instead for lighting, cooking and heating on **paraffin**, notwithstanding burn-related health risks; **coal**, in spite of high levels of domestic and township-wide air pollution; and **wood**, whose consequences for deforestation are severe.

Women are far more adversely affected by the unaffordability of electric power sources, as well as in expending *time and energy* to obtain alternative energy sources. The rationale for the higher prices low-income households pay is the far lower cost of supplying to large bulk consumers, yet **these firms do not pay the full social and environmental costs of the electricity**, including massive greenhouse gas emissions.

3.3 Wasted energy

There are numerous other examples of wasteful and polluting energy use. Due to the lack of effective public rail transport aside from primary commuter lines, South Africa relies excessively upon road transport and largely upon **leaded petrol**, although unleaded petrol was introduced in 1996. A major sanctions-era liquid-fuel-from-coal conversion industry is universally condemned as inefficient. Alternative energy sources such as **solar, wind and tidal**, have barely begun to be explored. The few hydropower plants, especially in neighbouring Mozambique, are based on inappropriate large dams. Nuclear power, in the form of the pebble-bed reactor concept, continues to rear its head, as Eskom invested huge amounts alongside international partners which have subsequently dropped out.

4. Waste

South Africa still engages in extremely **hazardous waste disposal practices**. These occur in *municipalities, hospitals and in the import of toxic waste*. An excessive emphasis on pollution-intensive, export-oriented production systems has worsened.

4.1 Local solid waste

Municipal waste dumps **do not, in the main, recycle or separate waste**. They are poorly managed and often leach pollution into water sources. Hospitals rely on old-fashioned **incineration**. Dumps are located in sites close to low-income settlements, with a consequent propensity to encourage survivalist dump-picking by low-income residents.

More general disposal of hazardous waste is done on an ad hoc basis, with medical waste and toxic wastes often **illegally dumped in residential areas**. Dumping of energy-related waste is unsatisfactory, ranging from a poorly regulated

nuclear waste dump that services Cape Town's power plant, to the more widespread dumping of ash from coal used for domestic purposes. Incineration of liquid toxic waste is practiced as an energy source without regulation. Regulatory bodies charged with monitoring pollution control lack capacity, and industry self-regulation of solid waste remains the norm.

4.2 Trade

There has been an important controversy over **trade in toxic waste**, as the first environment minister in the post-apartheid government gained cabinet approval to import toxic waste. This led to a sustained public campaign against such import, but the democratic government has not signed the Organisation of African Unity's Bamako Convention to halt trade in toxic waste. More generally with regard to the environmental footprint of production, South Africa's emphasis on export-oriented beneficiation of raw materials pits the profits associated with economic growth - with very few spinoffs for workers in capital-intensive plants - for a cheapened valuation of the environment, as discussed in detail in the case of Coega.

5. Industrial and mining pollution

Having looked at energy-related pollution, there still are several aspects of pollution associated with South Africa's skewed form of industrialisation to consider: the economy's *dependence upon mining, smelting and the Witwatersrand industrial complex*, mining-related pollution; manufacturing-related pollution; safety and health issues in mining and industry; and the *environmental implications of macroeconomic policy*.

To be sure, some minor improvements have been made with respect to mining safety and health since 1994, **but emissions are still generally deplorable**, especially the ongoing **water-table degradation** which the Department of Water Affairs and Forestry allows through reckless granting of pollution permits.

5.1 Hooked on fossil fuels

The Minerals-Energy Complex has had to extract **ever-deeper mineral deposits** that are **non-renewable** in character and whose prices have generally been falling, often in a severely fluctuating manner, on the world market for the past quarter-century. Since the development of deep-level mines in Johannesburg a century ago, following the 1886 discovery of extremely rich gold seams, the entire Witwatersrand complex grew up around a *mining, mining-equipment, petrochemicals and subsequently luxury-goods production nexus* that is **entirely illogical** from the standpoint of economic geography and natural resources, especially **water**. The late-apartheid and post-apartheid governments' macroeconomic orientation to export-led growth is exacerbating this intrinsic bias by **rewarding** export-platform developments near the Johannesburg airport, and an export-oriented **corridor development to Maputo**, including a toll road whose cost will be disproportionately borne by migrant workers.

5.2 Mine pollution dumps

Pollution from mining and related activities - chemicals, explosives, mining equipment manufacturing - has not been mitigated by either falling international minerals/metals prices or state regulation, in view of the deeper levels from which

minerals must be extracted. The **state's capture of minerals resources ownership in 2002** is a positive development, but the problem of captive regulation appears to be debilitating.

In the absence of serious regulation, mining has, in recent decades, resulted in more thorough destruction of aquifers and consumption of water; more saline ground water being pumped to the surface causing salt concentrations in waste systems; a greater dependence upon cheap energy; a greater reliance on deep-drilling technology, especially explosives; more intensive use of toxic chemicals to separate mineral ores; and a greater need for larger, surface-level slime-dams which have high sulphuric-acid content, and mine dumps which in turn are liable to mud slides and severe dust-related pollution.

Mines also often release **radiation**, and coal dumps often release **sulphur** into the air from long-term smouldering. **Asbestos** is a widely-used mineral that is extremely harmful to miners and consumers, and mine tailings remain hazardous for many years.

Environmental regulation of mine pollution has been terribly weak, including in the post-apartheid era. The Department of Minerals and Energy allows highly-constrained, self-regulatory Environmental management programme Reports as a substitute for Environmental Impact Statements, **downplays** public participation, and in collaboration with the Chamber of Mines **exempted** mining from national radiation regulations. When issuing pollution permits, the Department of Water Affairs and Forestry made and still makes notorious, unnecessary compromises with the mining and steel industries.

5.3 Manufacturing pollution

Following in many cases directly from mining industry practices, South African manufacturing firms have extremely **pollution-intensive production systems**. As in the case of mining, **a few large firms dominate** virtually every production subsector, and the *vertical linkage of producers to distributors and retailers* means that even when production is shut down, the import of a competing product is still contained within the same conglomerate, with consequent lack of consumer benefits from international economic integration.

Moreover, the **luxury-goods orientation** of locally produced consumer products, heightened by an **inordinate emphasis on packaging**, raises the unnecessary pollution associated with South Africa's middle-income standard of living, while most South Africans are still denied most basic goods and services in sufficient supply. Regulation of industrial emissions is weak, as Integrated Environmental Management was traditionally voluntary. **Fines are often far low than the benefits of polluting and maintaining health and safety standards at low levels**. Enforcement capacity is far less than is required to assure compliance with the current laws.

5.4 Polluting the workforce

Health and safety problems remain in mining and manufacturing. Cheap labour was a central motivating factor in the development of South Africa's mines, even when this had to be systematically established, in part at the expense of the environment, through apartheid-type labour recruitment and control mechanisms. Essentially based on women's role in the reproduction of labour, the system stretched more than 2.000 km into Malawi and elsewhere in Southern Africa. The artificial cheapness of labour also led to extremely low concern for worker safety and health, with the costs of illness - especially **tuberculosis**, in which South Africa

has amongst the highest incidence in the world – often simply shunted to rural women as men were discharged.

A decade's worth of mining job retrenchments, reducing the mine labour force from more than 750.000 to fewer than 450.000, generated systematic poverty in rural areas that grew dependent upon remittances, and also heightened social tension. Unemployment is itself, of course, the source of high levels of violence, injury and death. Fatality rates have dropped only marginally on the mines since the 1980s, and are still at one death annually per 1.000 workers, although annual injury rates have fallen by about a third, to 15 per 1.000 employees, in part thanks to a long-overdue Mine Health and Safety Act. In other industries, typically between 8.000 and 10.000 major incidents causing injury are reported annually, with 5% of injuries fatal. About a fifth of injuries and half of deaths are in the iron and steel-sector. The Department of Labour concedes it lacks investigative capacity, and sweatshop deaths are frequent.

5.5 Macroeconomic indifference

Post-apartheid macroeconomic policy, as spelt out in the Growth, Employment and Redistribution (Gear) strategy, contains just one token mention of 'environmental responsibility' in the attraction of new foreign investments, but no provisions to reverse any of the structural economic features associated with the legacy spelled out above. On the contrary, the emerging export strategy is based on expansion by minerals- and base-metals firms, partly thanks to massive state subsidies and consumer cross-subsidies. For example, because of discriminatory pricing that is possible due to concentration of the steel sector, local buyers have long paid a large premium so as to enhance export prices, and as a result US producers repeatedly file anti-dumping lawsuits.

Moreover, notwithstanding wildly overoptimistic claims about job creation, post-apartheid economic policies have generated job losses at an unprecedented level, which in turn are the basis for many urban ecological and health problems associated with lack of affordability of water, sanitation and electricity. Stagnation is the result of the country's highest-ever interest rates, fiscal spending cuts, and import liberalisation.

With an unemployment rate at approximately 30% in official terms and as high as 45% when those who are looking for work are also included, at least a million jobs – a fifth of the formal workforce by some measures – were lost during the late 1990s. The haemorrhaging appeared to only worsen as the world economy slowed, with one report of layoffs in the first quarter of 2002 alone counting 260.000 retrenchments.

South Africa's jobless problem is the worst of any industrial country, and is also an environmental hazard insofar as high unemployment threatens social stability, both in domestic (household) and political terms. Indeed, numerous municipal riots since 1994 have cost the lives of citizens as a result of rapidly-declining central-local government funding transfers, higher tariffs for water/sanitation and electricity. In a context of rapid job loss, cut offs of municipal services to individuals and indeed whole communities are common.

In one national survey in 2001, 10 million people reported that their water services were cut and a roughly equal number suffered electricity disconnections, as non-payments rose from apartheid-era levels of around 20% to more than 35% by

the late 1990s.⁵ In short, *status quo* economic policies only exacerbate the most damaging aspects of South Africa's environmental inheritance.

6. Conclusion

For the reasons sketched above, South Africa remains one of **the world's most dangerous environments in which to live and work**. It is difficult to know where to prioritise public policy debate and activism in this context, for each specific problem discussed above has any number of interrelations within broader social, economic, political and ecological systems. Putting a regulatory thumb down on one problem typically generates unintended consequences and leads to a related bubbling up somewhere else.

This is particularly true given a century of highly mobile labour, which left very low investments in self-owned housing, rural infrastructure, livestock and crop investments by many rural and small-town- residents. The countryside has also witnessed short-term ecological fixes in one area that generate social displacement via retrenchments, artificial urbanisation pressures and subsequent urban ecological problems somewhere else. These include switching untenable commercial agriculture to game farming, or removing subsidies that had gone to pollution-generating industries in decentralised locations. Women continue to bear the brunt of the suffering associated with these very durable eco-social oppressions.

The interrelations mean that individual case studies will always be incomplete in tracking the implications of environmental management or the lack thereof. The two subsequent chapters provide illustrative cases of environmental and related socio-economic conflict, covering debates over a mega-industrial project in the Nelson Mandela Metropole on the outskirts of the city of Port Elizabeth, and the transfer of water from the Lesotho Highlands Water Project to Johannesburg. Following these cases, we consider basic human environmental justice as well as macro-environmental challenges in the provision of water, sanitation and energy, so as to reflect upon the ways that change in the balance of forces has affected state strategies, capital accumulation, legislative language and social-movement politics.

Finally, the concluding chapter points to the simple lessons of social struggle. The ANC's failure **to tackle environmental challenges** more aggressively during the post-1994 window of opportunity suggest that activists, regulators and ordinary citizens in south Africa and across the world must **become more serious** about the underlying problem, which lies in the economic sphere, indeed in the capitalist mode of production itself. Debates over the WSSD are, hence, brought into sharp focus by the host country's environmental problems.

The aim of the envisaged discussion, simply, is to **shed light on the existing neoliberal approach** to environment and development, to **unveil weaknesses in sustainable development rhetoric**, and to **show how environmental justice advocates are responding to the challenges**. Not only are apartheid-era and post-apartheid socio-economic practices doing great damage to co-social processes. ... society must urgently address the ongoing *generation* of these outcomes, instead of just their symptoms. **A fundamental change in power politics** and the mode of production may well be required to do so.

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⁵ See www.queensu.ca/msp or *Sunday Independent*, 28 April 2002