ENVIRONMENTAL HEALTH & HEALTH EQUITY IN SOUTH AFRICA

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Michelle du Toit & Luqman Yesufu

Atlantic Fellows for Health Equity in South Africa based at Tekano

GroundWork South Africa

INTRODUCTION

1. The South African Constitution recognises both environmental health rights and the right of access to health care. There are great disparities in the health status among South Africans, in the health outcomes, and in access to health care services. These inequalities are perpetuated by varying determinants of vulnerability of those in South Africa. Environmental health impacts on the vulnerability of individuals, affects their health status, which is then further impeded by inequity in access to health care services.

2. This submission seeks to bring forth issues of environmental health which are impacting greatly on the population, and then the issue on health inequity, which is perpetuated by the violation of environmental health right obligations. The submission first considers the dire state of environmental health and then turns to health inequity. We submit that environmental rights and health rights cannot be considered in isolation due to the relationship between the environment and the health status of those living in South Africa.

ENVIRONMENTAL HEALTH

3. The South African Constitution recognises environmental rights in section 24 which reads:

> "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."

4. This coupled with the health rights recognised under section 27 of the Constitution provide the constitutional basis for issues pertaining to environmental health. This submission relies on this foundation along with South Africa's socio-economic rights obligations under international law to address pertinent issues of environmental health.

5. In a report by the Centre for Environmental Rights in collaboration with GroundWork and the Highveld Environmental Justice Network it was found that "the HPA has, to date, dismally failed in its purpose: to improve air quality so that it at least meets the NAAQS. This means that people of the HPA are having their Constitutional rights to an environment not harmful to health and wellbeing violated. The significant air pollution means that HPA residents are dying prematurely and suffering from respiratory and cardiac illnesses that inhibit their prosperity and wellbeing."

6. The report made several key findings:

   a) Air quality in the HPA has not improved in the past 10 years, despite intervention

   b) Lack of adequate accredited monitoring stations – do not actually know how bad the air quality is

   c) Difficult to assess as all information of key industries is not public

   d) Negligible measures to reduce dust emissions from mining activities

   e) Limited steps taken in dense, low-income settlement to reduce air pollution

   f) Lack of resources and staff to implement the AQMP and enforce the Air Quality Act

   g) National Air Quality Officer's decision to grant compliance postponements to two of the biggest air polluters – Eskom & Sasol.

7. It is submitted, in light of the obligations imposed by articles 11 and 12 of the ICESCR, as elaborated on by general comments (see below) that the State is failing to take steps to adequately address the air pollution.

8. In 2017 groundWork commissioned Dr Mike Holland - an air quality and health expert from a UK-based consulting firm[1] - to undertake an analysis on the health impacts of emissions from Eskom's coal-fired power stations (CFPSs), due to exposure to fine particulate matter ($PM_{2.5}$).[2]

9. The report of Dr Holland found that:

    a) the health impacts of Eskom CFPSs create a substantial burden on human health, leading to 2,239 equivalent attributable deaths, as well as increased illness quite widely within the population;

    b) the total quantifiable economic cost of air pollution from coal-fired generation in South Africa is in the region of R33 billion per year. This is made up of impacts in terms of early death, chronic bronchitis, hospital admissions for respiratory and cardiovascular disease, and a variety of minor conditions leading to restrictions on daily activity, including lost productivity; and

    c) these health impacts are likely most severe on the more disadvantaged members of society, particularly those with worse underlying health conditions.

[1] Dr Michael Holland has been involved in the quantification of the impacts of air pollution from power systems since 1990, when he worked at the heart of the influential EC-US Fuel Cycles Study funded by the European Commission, EU Member States and the US Department of Energy. Following completion of the initial study in 1995 this work continued in Europe as the ExternE Study until 2005. Since 1996 Mike has provided cost-benefit analysis of air quality and industrial policies for a variety of organisations including not only the European Commission, but governments in the UK, France, Sweden, China and a number of other countries. He has also provided analysis for international organisations including the Organisation for Economic Cooperation and Development (OECD) and the World Bank.

[2] https://cer.org.za/wp-content/uploads/2017/04/Annexure-Health-impacts-of-coal-fired-generation-in-South-Africa-310317.pdf.

10. This evidence follows the research done in 2014 by Lauri Myllyvirta, a coal and air pollution specialist, which was made available as part of our opposition to Eskom's first round of MES postponement applications.[3] This report concluded that atmospheric emissions from Eskom's CFPSs were then causing an estimated 2,200 premature deaths per year, due to $PM_{2.5}$ exposure. This included approximately 200 deaths of young children. The economic cost to society was estimated at R30 billion per year, including premature deaths from $PM_{2.5}$ exposure and costs from the neurotoxic effects of mercury on children.

11. In addition to the two specialist studies referred to above, we understand that Eskom is well aware of the health impacts of its stations and draw our attention to the health impact assessments Eskom itself commissioned as far back as 2006.[4] The study focused on the emissions from the Eskom then-existing fleet of 10 CFPSs, and concluded that Eskom CFPSs were cumulatively calculated to be responsible for 17 non-accidental mortalities per year and 661 respiratory hospital admissions, representing 3.0% and 0.6% of the total non-accidental mortalities and respiratory hospital admissions projected across all sources.

12. What is even more striking, however, is the study's finding that future Eskom's emissions, including increased releases from existing stations and the commissioning of 3 new and 3 return-to-service stations, were cumulatively calculated to be responsible for 617 non-accidental mortalities per year and 24 842 respiratory hospital admissions. Moreover, SO_2 was estimated to be responsible for 100% of the mortality risks and 99.5% of the hospital admission risks estimated to be due to power station releases.[5]

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[3] http://cer.org.za/wp-content/uploads/2014/02/Annexure-5_Health-impacts-of-Eskom-applications-2014-_final.pdf. See also http://www.groundwork.org.za/specialreports/groundWork%20The%20Health%20Impact%20of%20Coal%20final%2020%20May%202014.pdf.

[4] See "Eskom health studies" at https://cer.org.za/programmes/pollution-climate-change/key-information; https://mg.co.za/article/2014-06-19-power-stations-are-deadly-internal-report-reveals

[5] See the Executive Summary of the 'Air Pollution Compliance Assessment and Health Risk Analysis of Cumulative Operations of Current, RTS and Proposed Eskom Power Station Located within the Mpumalanga and Gauteng Provinces' available from the link in footnote 4 above.

RECOMMENDATIONS

13. Immediate steps must be taken to reduce emissions of pollutants:

    a. All facilities in the HPA must be required to comply with at least with the minimum emission standards. Therefore, having heard representations from the facilities and affected communities, the National Air Quality Officer should use her powers under the Air Quality Act to consider withdrawing the postponements of compliance with minimum emission standards granted to Eskom and Sasol;

    b. No further postponements of compliance with minimum emission standards or other licence variations that permit exceedances of licence emission standards should be allowed;

    c. Licensing authorities must suspend the issuing of all new atmospheric emission licences in the HPA, until there is consistent compliance with all NAAQS. Approval and licensing of any expansion plans of existing industries must be contingent on a simultaneous substantial reduction in emissions;

    d. When facilities reach their scheduled end-of-life (particularly certain Eskom coal-fired power stations), atmospheric emission licences must be withdrawn, and decommissioning and rehabilitation enforced;

    e. The National Dust Control Regulations must be amended to ensure adequate monitoring, measurement, and reduction of the significant dust emissions in the HPA, particularly from mining sources;

14. A comprehensive compliance monitoring and enforcement programme must be put in place;

15. Institutions ensuring compliance and improved air quality need to be strengthened and appropriately resourced; and

16. To build trust in the integrity of the management of the HPA, and to enable meaningful and informed participation by all stakeholders, there must be far greater transparency about regulation, monitoring, and compliance.

HEALTH EQUITY

Inequities in the health care system

17. The World Health Organisation ('WHO') defines equity as "the absence of avoidable or remediable differences among groups of people, whether those groups are defined socially, economically, demographically, or geographically."[6] Health equity therefore, by implication, means that there are no discrepancies in opportunity to lead a health life. Health should not be subject to determination by race, ethnicity, gender, income, sexual orientation, or any other social determinant. States should eliminate discrepancies in health outcomes among groups to achieve health equity.

18. There are many inequalities in the health care system. These range from urban-rural discrepancies, rich-poor discrepancies, public-private discrepancies and Western-traditional discrepancies. These inequalities, inherited from the colonial and apartheid past, are arguably being perpetuated by the current system.[7]

19. The current two-tier system, which consists of a public sector and a private sector, manifests the discrepancies in access to and quality of care. The private sector serves 16% of the population.[8] However, out of the 8.9% of South Africa's Gross

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[6] World Health Organisation *Equity* www.who.int/healthsystems/topics/equity/en.

[7] M Pieterse *Can Rights Cure?* (2014) 43.

[8] World Health Organisation *World Health Statistics* (2015) <http://www.who.int/countries/zaf/eg> (accessed 2 June 2016). Pretorius, a researcher for Africa Check, claims that this statistic is misleading because it is based on the percentage of people that belong to medical aid schemes. She argues that the number of people who rely on the private

Domestic Profit ('GDP') which is spent on health care, over 50% is spent in the private sector.[9] The public sector thus has more people to provide for with fewer resources, resulting in diminished access to and quality of care. The division of resources between the public and private sectors do not reflect the needs of the population.[10]

Equity as fundamental to universal health coverage

20. The goal of universal health coverage is to provide people with the health services needed without exposing them to the risk of financial ruin.[11] Universal health coverage consists of three dimensions: the health services needed; the people who need them; and the costs of providing them.[12] WHO identifies PHC as playing an important role in seeking to realise universal health coverage.[13]

21. The 2010 World Health Report by WHO focuses on health care financing mechanisms, with universal health coverage clearly in mind.[14] The 2010 World Health Report emphasises the need to address inequality in health care services.[15] Cognisant of the competing goals within health systems,[16] the report articulates

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sector surpasses those who belong to medical aid schemes. Although there is some merit to her assertions, she neglects to consider those who belong to medical aid schemes who are still unable to access the private sector due to high contributory payments and package structures. This study submits that it is acceptable to base access to the private sector on the number of people who have medical aid schemes as this is the primary means of accessing the private sector and overcoming the financial burden of accessing private health care. L Pretorius "Does South Africa's Private Healthcare Sector only Serve 16% of the Population?" 08-08-2017 <https://africacheck.org/reports/does-sas-private-healthcare-sector-only-provide-care-for-16-of-the-population/> (accessed 10 August 2017). See also Michelle du Toit 'An Evaluation of the National Health Insurance scheme in light of South Africa's Constitutional and International Law Obligations Imposed by the Right to Health' (unpublished LLM Thesis, Stellenbosch University, 2017).

[9] World Health Organisation *World Health Statistics* (2015) <http://www.who.int/countries/zaf/eg> (accessed 2 June 2016).

[10] Department of Health *National Health Insurance Policy Document* GN R627 in *GG* 40955 of 30-06-2017 para 99; World Health Organisation *World Health Statistics* (2015) <http://www.who.int/countries/zaf/eg> (accessed 2 June 2016).

[11] World Health Organisation *World Health Report: Research for Universal Health Coverage* (2013) 4.

[12] World Health Organisation *World Health Report: Health Systems Financing: the Path to Universal Coverage* (2010) XV.

[13] World Health Organisation *World Health Report: Primary Healthcare: Now More than Ever* (2008) 18.

[14] World Health Organisation *World Health Report: Health Systems Financing: the Path to Universal Coverage* (2010).

[15] Para 1.

[16] Competing goals may include: improving the level of health in society, reducing inequalities, responding to the needs of communities; profit; and ensuring financial fairness, para 78.

the need to consider socio-economic circumstances when assessing the costs and financial risks pertaining to health care.[17]

22. Subsequent to this, the UN General Assembly 2012 Resolution on Global Health and Foreign Policy recognises "the importance of universal coverage in national systems, especially through PHC and social protection mechanisms, to provide access to health services for all, in particular, the poorest segments of the population."[18] This resolution mandates governments to facilitate the transition to universal health coverage systems to increase access to affordable and quality health care services.[19]

23. Furthermore, the Sustainable Development Goals[20] includes universal health coverage as a goal to be achieved, "including financial risk protection, access to quality essential health care services and access to safe, effective, quality and affordable medicines and vaccines for all."[21]

Health equity through the NHI scheme

24. The National Health Insurance ('NHI') scheme is a way to achieve universal health coverage for South Africa. The NHI scheme seeks to ensure universal health coverage for the entire population and promote equity and social solidarity. A fundamental principle of the NHI scheme is equity, in both access to health care and quality of health care.

25. The NHI scheme emphasises a needs-based approach. Primary health care and needs-based approach to health care entail community participation and

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[17] Para 78.

[18] United Nations General Assembly Resolution on Global Health and Foreign Policy (6 December 2012) A/67/L.36.

[19] Para 21. See also J E Ataguba & D McIntyre "The Incidence of Health Financing in South Africa: Findings from a Recent Data Set" (2017) *Health Economics, Policy and Law* 1 1.

[20] United Nations Sustainable Development Goals para 54 of United Nations Resolution A/RES/70/1 of 25 September 2015.

[21] Goal 3.8. The slogan of the Sustainable Development Goals is "leave no one behind" and this coincides with the goal of achieving universal health coverage. See A E Yamin "Taking the Right to Health Seriously: Implications for Health Systems, Courts, and Achieving Universal Health Coverage" (2017) 39 *Human Rights Quarterly* 341 363. See also M P Kieny et al. "Strengthening Health Systems for Universal Health Coverage and Sustainable Development" (2017) *Bulletin of World Health Organisation* 1-8.

engagement. Without engagement, the needs of people will be difficult to determine. However, engagement cannot occur without information. The development and implementation of the NHI scheme need active participation for its needs-based approach to achieve equity and this requires information and understanding.

26. Currently, the financial burden of access to health care is greater on the poor. The percentage of disposable income spent on health care is much greater for the poor than the rich.[22] The NHI scheme seeks to remove the financial risk of seeking access to health care. The universality of the scheme allows for cross-subsidisation between the old and the young, the sick and the health and the rich and the poor. Thus, the NHI seeks to achieve equity in both access and quality through such cross-subsidisation under health care reform.

27. Given the nationwide impact of the NHI scheme, engagement and participation are necessarily needed for effective implementation. Moreover, engagement and participation can aid effective development and implementation and also gain more support for the reformation, as this is only possible through better understanding. Without accessible and understandable information, nationwide understanding of the NHI scheme is not possible.

28. A lack of information implicates support for health reform and also accountability. People cannot hold government accountable if they do not have information. The right to access to information under the Constitution (section 32) includes the right to all information necessary to protect your rights. In the case of the NHI, information is necessary to hold government accountable, to realise the goals of the NHI scheme and successfully address the inequities plaguing the current health care system.

[22] See chapter two part 4 1.

RECOMMENDATIONS

29. In seeking to achieve universal health coverage, and thereby health equity, through the NHI scheme, the discrepancies in access to and quality of health care need to be addressed. These incongruities include:

    a. Differences in health outcomes, access, and quality of care, between:

        i. The rich and the poor;
        ii. The urban and the rural;
        iii. The sick and the healthy;
        iv. The formally employed and the informal sector;
        v. Races;
        vi. Gender;
        vii. And the old and young.

30. It is therefore recommended that the pool for cross-subsidisation under the NHI be regulated to be as inclusive and far-reaching as possible, to ensure that these inequities can be addressed.

31. It is further recommended that the development of the NHI scheme explicitly acknowledges the health inequities, and, through participation and engagement, seek to address them.