

## Air quality offsets – A get out of jail free card or a cost-effective solution to one of South Africa's most intractable environmental problems?

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Degraded air quality is a powerful symbol of environmental injustice in South Africa, and, indeed through much of the developing world. Inevitably it is poor residential areas that are beset. Apartheid planning put poor communities close to large scale industrial emissions sources, but it is a lack of work opportunities and livelihoods that keeps them there now. The Air Quality Act provides for the declaration of so-called 'priority areas' where national ambient air quality standards are either exceeded or likely to be exceeded. Declared Priority Areas are now the Vaal Triangle, the Highveld and Waterberg-Sekanjalo, the last remaining viable coal-field in South Africa and where the giant Medupi Power Station (4800MW) is situated. The Priority Areas all include large residential areas where the inhabitants are poor to very poor. These low-income dense settlements still rely on coal, wood or paraffin predominantly for cooking and space heating, despite various electrification programmes. Air quality in these settlements is similarly poor and limited visibility, and acrid, smoky conditions dominate the living environment. The publication of the Minimum Emission Standards (MES) in 2012 was touted as an important step in improving that air quality, but compliance is proving highly challenging for several industries, including the two largest emitters of air pollution by mass in South Africa, Eskom and Sasol. Eskom and Sasol (and other emitters) have applied for postponements of the MES compliance time frames. Air quality offsetting has been touted by both these industries and the authorities as a means of achieving improved air quality at a fraction of the cost of abatement, but vehemently opposed by environmental NGOs as a 'get out of jail free' card. Detailed analysis of ambient air quality monitoring reveals however that the large industrial emitters are not necessarily the key sources of non-compliance with the National Ambient Air Quality Standards (NAAQS) and that it may well be emissions from household fuels that are the real problem. If that is true, then air quality offsetting could make a key contribution to South Africa's economic revival while at the same time engendering a host of improvements in the generally poor living environments.