



# Centre for Environmental Rights

Advancing Environmental Rights in South Africa

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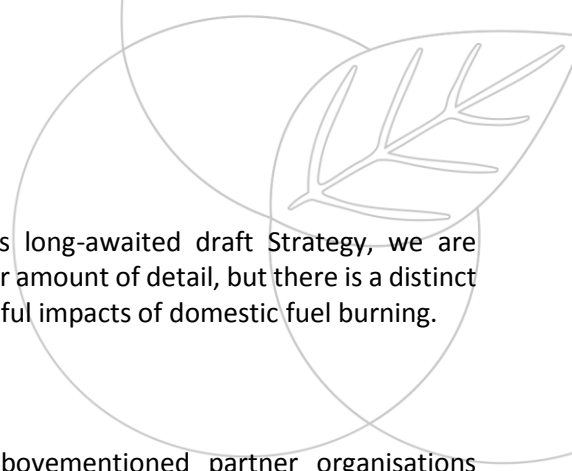
Dear Elizabeth

## COMMENTS ON THE DRAFT STRATEGY TO ADDRESS AIR POLLUTION IN DENSE LOW INCOME SETTLEMENTS

1. We refer to the Draft Strategy to address Air Pollution in Dense Low Income Settlements (“the draft Strategy”) published on 24 June 2016 in Government Notice 356, Government Gazette 40088.
2. We address you on behalf of groundwork (gW), Earthlife Africa, Johannesburg (ELA), the Vaal Environmental Justice Alliance (VEJA), the Highveld Environmental Justice Network (HEJN), and the South Durban Community Environmental Alliance (SDCEA) (“our clients”) and all of the community-based organisations that they are affiliated with and represent.<sup>1</sup>

<sup>1</sup> groundWork is a non-profit environmental justice service and developmental organisation aimed at improving the quality of

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3. Whilst we and our clients are pleased to see the publication of this long-awaited draft Strategy, we are disappointed by its contents. The draft Strategy sets out the issues in a fair amount of detail, but there is a distinct lack of adequate, measurable, and progressive plans to address the harmful impacts of domestic fuel burning.

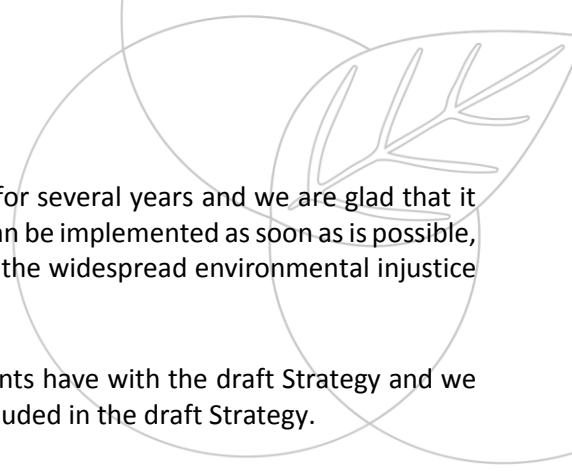
#### Background

4. Most members of the community-based organisations that the abovementioned partner organisations represent/are affiliated with, reside in townships spread across South Africa and are affected by indoor pollution from using energy sources such as paraffin, coal and wood-fired stoves for cooking and heating. Some of these communities are situated in areas that are already extremely polluted by industrial sources, and the indoor pollution only serves to further exacerbate the health problems that they experience.
5. Three areas in South Africa have been declared priority areas in terms of section 18 of the National Environmental Management: Air Quality Act 39 of 2004 (AQA). The Vaal Triangle Airshed Priority Area (VTAPA) was the first to be declared in 2006 and this was followed by the Highveld Priority Area (HPA) in 2007. More recently the Waterberg Bojanala Priority Area was declared in 2012, pre-empting air pollution that is anticipated to exceed ambient air quality standards as a result of the many developments that are proposed in the area, including the operation of Eskom's Medupi power station. The aim of the declaration of these areas was to provide a mechanism for national air quality management action to rectify air quality in an area where ambient air quality standards are being exceeded. However, air pollution in the VTAPA and HPA still regularly exceeds the health-based ambient air quality standards, as reported by the Department of Environmental Affairs (DEA) in its reports at priority area multi-stakeholder reference group meetings and in the National Air Quality Officer's annual reports.
6. Our clients are concerned about the prevailing air pollution that has affected their areas<sup>2</sup> for a very long time, and coupled with indoor air pollution, the section 24 Constitutional right to an environment that is not harmful to health or well-being is continuously being violated.
7. Many people who reside in the areas worst impacted by air pollution are poor and vulnerable, unemployed, and have little or no access to electricity. As a result, many are forced to rely on energy from domestic fuel sources. Consequently, their health and the health of their children is affected by the emissions arising from the use of cheaper, easily accessible domestic fuel sources. In essence, they are victims of their circumstances.

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life of vulnerable people in South Africa (and increasingly in Southern Africa), through assisting civil society to have a greater impact on environmental governance. groundWork places particular emphasis on assisting vulnerable and previously disadvantaged people who are most affected by environmental injustices. ELA is an environmental justice organisation which promotes sustainable solutions to South Africa's challenges, without exploiting people or degrading the environment. VEJA is a democratic alliance of empowered civil society organisations in the Vaal Triangle, who have the knowledge, expertise and mandate to represent the determination of the communities in the area to control and eliminate emissions to air and water that are harmful to these communities and to the environment. HEJN is an organisation comprising of 14 community-based organisations who share a common vision. Their objectives are: to be a platform of solidarity for local communities against environmental injustices relevant to the Highveld area and/or its people; to educate, organise and mobilise with organisations and the public on environmental justice issues relevant to the Highveld; and to respond to grassroots concerns on environmental injustices relevant to the Highveld. The community based organisations that they SDCEA is an environmental justice organisation based in south Durban. It is made up of 16 affiliate organisations, and it has been active since its formation in 1996. It is considered successful for many reasons, one of which is that it is a vocal and vigilant grouping in terms of lobbying, reporting and researching industrial incidents and accidents in this area. It contributes to the struggle against environmental racism for environmental justice and environmental health.

<sup>2</sup> Particularly areas in the HPA such as KwaGuqa, Mhluzi etc. in Middelburg and Witbank respectively. In the VTAPA areas such as Zamdela, Soweto, Orange Farm, Sharpville, Sebokeng etc.

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8. We and our clients are aware that the draft Strategy has been planned for several years and we are glad that it has finally been published. We hope that some of the intervention plans can be implemented as soon as is possible, to immediately alleviate the prevailing problems of indoor pollution and the widespread environmental injustice in many parts of South Africa.
  9. In our comments below, we highlight some of the concerns that our clients have with the draft Strategy and we then make specific suggestions and recommendations that should be included in the draft Strategy.
  10. We do not make submissions on every provision of the draft Strategy, but only those in respect of which we have specific comments, proposals, and recommendations. Given the significant health impacts of air pollution and the urgency of appropriately addressing these issues, we trust that there will still be several opportunities to provide input on the draft Strategy, and that it will be workshopped in detail with affected communities.

The Constitutional right to an environment not harmful to health of well-being is not subject to progressive realisation

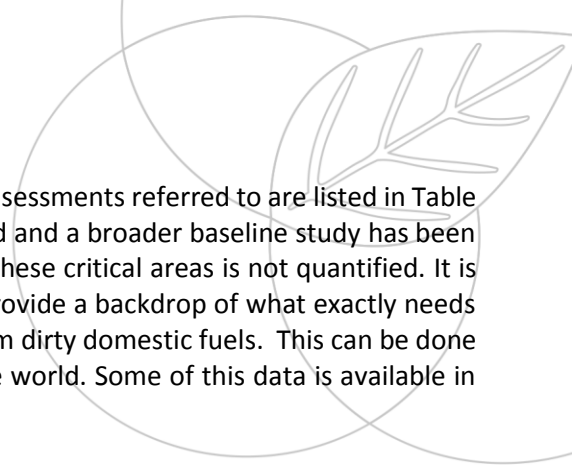
11. Section 24 of the Constitution recognises that:  
*Everyone has the right-*
  - (a) *to an environment that is not harmful to health or well-being; and*
  - (b) *to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures 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*
12. This right is universal and it is therefore not subject to any qualifications such as the idea of “progressive realisation” (to which reference is made, incorrectly we submit, in section 3(b) of AQA) or the availability of resources. The health effects of the communities affected is clear proof that the problem needs to be addressed as a matter of urgency, before the financial burden on the taxpayer and government becomes even more significant.

Definition of low-income settlements

13. The definition of “low-income settlements” as stated in the draft Strategy is in fact not based on income – these settlements are defined as follows:  
  
*“For the purpose of this document, low - income settlements will refer to all areas that have been identified by various studies and AQMP baseline assessments as having relatively high emissions as a result of domestic burning of dirty fuels.”<sup>3</sup>*
14. This use of the phrase “low income settlements” therefore appears to bear no relation at all to income. We recommended that the draft Strategy instead be referred to as the ‘draft strategy to address air pollution in densely populated places affected by domestic burning of dirty fuels such as coal, wood and paraffin’.

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<sup>3</sup> Draft Strategy at p11



15. The various studies and Air Quality Management Plan (AQMP) baseline assessments referred to are listed in Table 2 of the document.<sup>4</sup> While the critical areas affected have been identified and a broader baseline study has been conducted, specific impact of indoor pollution on outdoor air quality in these critical areas is not quantified. It is important to highlight the impacts of these energy sources in order to provide a backdrop of what exactly needs to be addressed, and what needs to be done to reduce the emissions from dirty domestic fuels. This can be done by looking at assessments that have already conducted elsewhere in the world. Some of this data is available in documents available online and these should be taken into account.<sup>5</sup>

#### Outlining and quantifying the exceedances caused by the utilisation of dirty fuels

16. This description of the problem of air pollution in “low income settlements” is based on generalisation and lacks supporting evidence for its assertions. For example, the statement that “*what has become clear is that household utilisation of some fossil fuels/dirty fuels are a major contributor to the observed exceedances of ambient air quality standards in residential areas*”<sup>6</sup> lacks important detail and specificity, since monitoring stations - the presumed source of observed exceedances - are not located in all residential areas. This generalisation should be qualified with reference to particular monitoring stations and particular residential areas. Outlining and quantifying these exceedances will provide a basis for understanding what areas need to be focused and prioritised upon.

#### Health impacts

17. There is ample international<sup>7</sup> and national<sup>8</sup> evidence that the use of highly-polluting domestic fuels such as wood, coal and paraffin (kerosene) results in high indoor air pollution levels and concomitant health impacts.

18. The World Health Organisation (WHO) indoor air Quality guidelines on household and fuel combustion indicate that:

*“Almost 3 billion of the world’s poorest people still rely on solid fuels (wood, animal dung, charcoal, crop wastes and coal) burned in inefficient and highly-polluting stoves for cooking and heating, currently resulting in some 4 million premature deaths annually among children and adults from respiratory and cardiovascular diseases, and cancer. Together with widespread use of kerosene stoves and lamps, these household energy practices also cause many deaths and serious injuries from scalds, burns and poisoning. The use of solid fuel for heating in more developed countries is also common and contributes significantly to air pollution exposure. Air pollution from household fuel combustion is the most important global environmental health risk today.”<sup>9</sup>*

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<sup>4</sup> Draft Strategy at p12

<sup>5</sup> Seneca Naidoo et Al ‘Quantification of Emissions Generated from Domestic Burning Activities from Townships in Johannesburg’ [http://www.cleanairjournal.org.za/download/snaidoo\\_et\\_al\\_2014.pdf](http://www.cleanairjournal.org.za/download/snaidoo_et_al_2014.pdf);

J Wichman et al ‘Impact of Cooking & Heating Fuel Use on Acute Respiratory Health of Pre-School Children In South Africa’ The South African Journal of Epidemiology & Infection 2006;21(2): 48-54;

M Balmer ‘Household Coal Use in Urban Townships in South Africa’

[http://www.erc.uct.ac.za/sites/default/files/image\\_tool/images/119/jesa/18-3jesa-balmer2.pdf](http://www.erc.uct.ac.za/sites/default/files/image_tool/images/119/jesa/18-3jesa-balmer2.pdf) , 2007;

L Africa et Al ‘Domestic Energy Use of Low Income Households in Grahamstown East’

<https://www.ru.ac.za/media/rhodesuniversity/content/environmentalscience/documents/cbnrm/research/Group%208%20Domestic%20Energy%20use.pdf> 2011

World Health Organisation Report on Residential Heating with Wood and Coal; Health Impacts & Policy Options in Europe & North America

[http://www.euro.who.int/\\_data/assets/pdf\\_file/0009/271836/ResidentialHeatingWoodCoalHealthImpacts.pdf](http://www.euro.who.int/_data/assets/pdf_file/0009/271836/ResidentialHeatingWoodCoalHealthImpacts.pdf) 2015

<sup>6</sup> Draft Strategy at p5

<sup>7</sup> WHO guidelines for indoor air quality: Household Fuel Combustion <http://www.who.int/indoorair/guidelines/hhfc/en/>

<sup>8</sup> Barnes et al., Household energy, indoor air pollution and child respiratory health in South Africa. Journal of Energy in Southern Africa Vol 20 No 1 February 2009

<sup>9</sup> WHO guidelines for indoor air quality: Household Fuel Combustion – Executive summary at pxiv

19. The report goes on to discuss the health burden and states that:

*“Many studies show that these household energy practices result in very high levels of household air pollution (HAP). Global burden of disease estimates have found that exposure to HAP from cooking results in around 4 million premature deaths, with the most recent estimates from WHO reporting 4.3 million deaths for 2012. HAP is responsible for nearly 5% of the global disease burden (expressed as disability-adjusted life-years (DALYs)), making it globally the single most important environmental risk factor.”<sup>10</sup>*

20. The WHO household energy database shows the global extent of reliance on solid fuels for cooking and how this is concentrated in low-and middle-income countries (LMICs) across Asia, Africa and Latin America. It states that more than 95% of the population uses solid fuels for cooking in a significant number of countries, most of which are in sub-Saharan Africa.<sup>11</sup>

21. The draft Strategy acknowledges that *“...the negative health impacts and mortality from domestic fuel burning in South Africa has not been properly documented but that the existence of their negative impacts cannot be disputed.”<sup>12</sup>* We and our clients believe that it is important to have data - current or otherwise - of the health effects of indoor pollution in the densely populated areas, and how much this accounts for the global burden of disease in South Africa, as an essential aspect of this intervention. Having this data will be crucial later in evaluating whether – and to what extent - improvement in indoor air quality will improve health. Regard should preferably be had to already existing studies and these findings should be described and included in an updated and revised draft Strategy.<sup>13</sup>

22. Objective 3 in section 7 of the draft Strategy on ensuring continued monitoring, evaluation and reporting on the successes and failures of the proposed interventions and on air quality improvements, states that one of its action items under activity 3a is to “Evaluate the health impacts (improvements or otherwise) of this strategy’s intervention”. Although this is an important aspect, without baseline data, progress (or lack thereof) cannot be ascertained. Also, this action item is vague and fails to provide an explanation for how this health monitoring would take place.

#### Transparency & information sharing between departments, institutions, and relevant organisations

23. We and our clients find that it is very difficult to access data from government departments that could assist in our work to advance section 24 of the Constitution. We note that the draft Strategy requires collaboration between several departments as already mentioned on page 6 of the draft, but the following government departments should particularly make efforts to collaborate on the strategy to eliminate indoor pollution: Department of Health, Department of Human Settlements, Department of Mineral Resources, Department of

<sup>10</sup> WHO guidelines for indoor air quality: Household Fuel Combustion – Executive summary at p1

<sup>11</sup> WHO guidelines for indoor air quality: Household Fuel Combustion – Executive summary at p1

<sup>12</sup> Draft Strategy at p19

<sup>13</sup> Brendon Barnes et al ‘Household energy, indoor air pollution and child respiratory health in South Africa’

<http://www.scielo.org.za/pdf/jesa/v20n1/01.pdf>;

World Health Organisation: Indoor Air Pollution, Health & the Burden of Disease

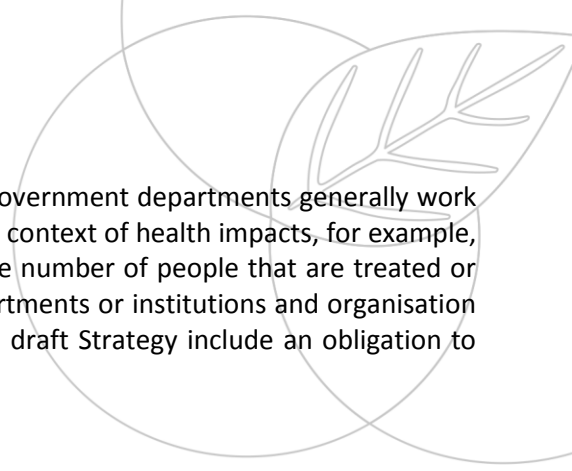
<http://www.who.int/indoorair/info/briefing2.pdf>;

World Health Organisation Report on Residential Heating with Wood and Coal; Health Impacts & Policy Options in Europe & North America

[http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0009/271836/ResidentialHeatingWoodCoalHealthImpacts.pdf](http://www.euro.who.int/__data/assets/pdf_file/0009/271836/ResidentialHeatingWoodCoalHealthImpacts.pdf) 2015;

Estimating the burden of disease attributable to indoor air pollution from household use of solid fuels in South Africa

<http://www.ajol.info/index.php/samj/article/viewFile/13908/59687>



Energy and the Department of Social Development. In our experience, government departments generally work independently in silos and they do not share valuable information. In the context of health impacts, for example, the Department of Health should share information and statistics on the number of people that are treated or hospitalised as a result of indoor pollution with other government departments or institutions and organisation requiring this information. We therefore strongly recommend that the draft Strategy include an obligation to share data with other departments.

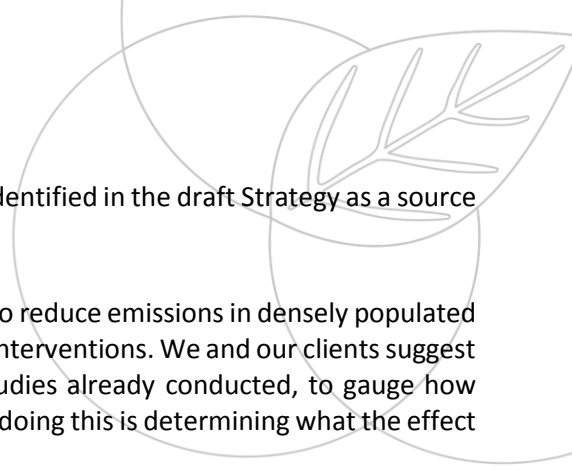
The Strategy does not contain adequate baseline data for adequately designing, implementing, and evaluating interventions

24. Objective 2 of the draft Strategy is to facilitate, through the forum, the implementation of interventions aimed at reducing emissions from dense low-income settlements.<sup>14</sup> The progress with respect to Objective 2 cannot be assessed without an adequate baseline and ongoing monitoring of household fuel use.
25. The draft Strategy does not contain adequate baseline data on each of the settlements that are targets of the intervention strategy. There is no indication of the number of households, the list of harmful pollutants, the quantity of each of the dirty fuels used in each settlement and the prevalence of indicators of energy inefficiency such as the lack of ceilings etc.
26. Of the 10 studies listed in Table 2, all were published 5 years or more ago; the oldest was published in 2003, 13 years ago. In 3 cases, the household fuel type is not known, and in one case, only paraffin use was reported on. There is no statistical data on the number of households or demographic information (number of people, age distribution, etc.) in each of the listed critical areas identified, nor is there an indication of the fuel use in each of the critical areas identified. In effect, there is no baseline pertaining to the use of dirty fuels against which the success or otherwise of future interventions could be judged and decided upon.
27. Data on current household fuel use are essential to give an estimate of current particulate matter with an aerodynamic diameter of 10 µm or less (PM10), sulphur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO) and volatile organic compounds (VOCs) emissions from household fuel combustion. The tracking or monitoring of future fuel use per area is also essential to monitoring the success or otherwise of interventions aimed at reducing emissions due to the use of dirty fuels in households. Since all 3 (coal, wood and paraffin) of the dirty fuels under consideration emit varying quantities of the pollutants (have different emission factors), the baseline should include information of fuels used and corresponding baseline information of total emissions of the different pollutants.
28. A baseline of energy needs would include data on household level energy requirements, consumption rates of each fuel type (paraffin, wood, coal, gas), end use of the fuel (cooking or space heating or other) for each area targeted for intervention. Baseline data should also include prevalence of ceilings, solar water heaters and other information relevant to possible interventions under the draft Strategy. Baseline data should include household level fuel costs (household price of fuels) and total energy costs and data on fuel burning devices – stoves and heaters.
29. The draft Strategy also highlights other sources of air pollution in the affected communities, which are also significant sources of varying impact, particularly in winter,<sup>15</sup> but fails to provide data on these sources. The data on these sources should be provided as part of the baseline study in order to determine how much of the pollution is caused by these sources. In addition, brick-making, which is very common in Mpumalanga, and which is also a

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<sup>14</sup> Draft Strategy p25

<sup>15</sup> Draft Strategy p18



source of substantial pollution in densely populated areas, has not been identified in the draft Strategy as a source of air pollution.

30. The draft Strategy outlines intervention measures that could be adopted to reduce emissions in densely populated areas,<sup>16</sup> but does not evaluate the potential effectiveness of these proposed interventions. We and our clients suggest that the draft Strategy take into consideration the various extensive studies already conducted, to gauge how effective the proposed interventions will be, and perhaps the best way of doing this is determining what the effect will be without the proposed intervention/s.<sup>17</sup>
31. The instrument of household surveys - similar to those conducted by Statistics South Africa (StatsSA) - could be used both to establish baseline information and to track progress. The assistance of StatsSA in the design of the survey instrument based on the specific objectives of the intervention strategy, and harmonised (as far as possible) with StatsSA's annual household surveys, would be advantageous. It is suggested that StatsSA be included in the list of collaborating entities.
32. Other additional area level sources of baseline fuels use data should be investigated, such as fuel wholesalers and distributors, and coal mining companies providing free coal to communities.
33. The draft Strategy also does not include a plan to collate comprehensive baseline data or a strategy to track progress of interventions to replace dirty fuels with clean fuels, or to track other interventions such as the installation of solar water heaters and ceilings in existing houses without ceilings. There is also no indication of how the benefits will be quantified. All of these should be clarified in the draft Strategy.

The proposed methodology for selecting prioritised areas for implementing the Strategy is vague and requires further clarification

34. The Strategy provides little explanation (and no criteria) concerning how priority areas for intervention would be selected. Section 7, which sets out the Action plan for the Strategy, provides little clarification. Under the Action plan activity 1b, it is stated that the DEA and NCC would "[P]rioritise areas in terms of the state of the air quality and the number of people affected" by 2018.<sup>18</sup> Table 3 of the Strategy sets as a target that 10 areas will be prioritised for specific interventions by 2018.<sup>19</sup> The section on activity 1b further elaborates that "the implementation of such activities in areas with the most population affected by poor air quality including those in areas declared as Priority Areas in terms of the AQA ... must be prioritised."<sup>20</sup>
35. Without providing detailed criteria for selecting priority areas, the benchmarks for measuring government performance in reducing air-pollution in low-income dense areas would also be meaningless. For example, nothing in the Strategy would prevent the government from selecting all 10 priority areas for intervention within the same region (such as the HPA) and ignoring the rest of the country. Although such a geographically limited selection of priority areas would be in full compliance with the current draft Strategy's targets, it would not have a meaningful impact on reducing air pollution.

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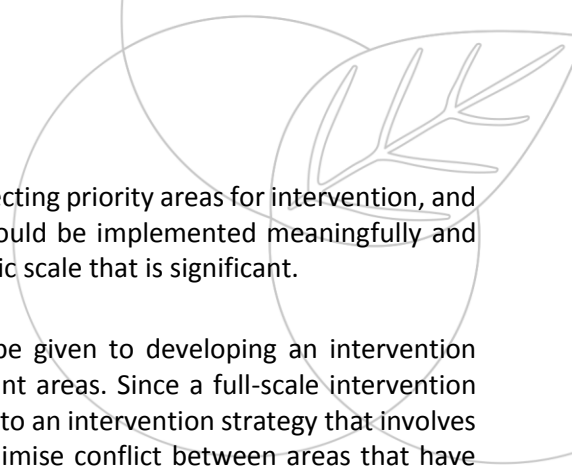
<sup>16</sup> Draft Strategy p23-28

<sup>17</sup><https://www.ecn.nl/fileadmin/ecn/units/bs/JEPP/energyforthepoor.pdf>; <https://www.iea.org/publications/freepublications/publication/cooking.pdf> ; [http://cleancookstoves.org/resources\\_files/womens-empowerment-gender-guide.pdf](http://cleancookstoves.org/resources_files/womens-empowerment-gender-guide.pdf)

<sup>18</sup> Draft Strategy p38

<sup>19</sup> Draft Strategy p30

<sup>20</sup> Draft Strategy p25

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36. The draft Strategy should therefore provide more detailed criteria for selecting priority areas for intervention, and more appropriate indicators and targets to ensure that the Strategy would be implemented meaningfully and effectively. Targets should ensure that priority areas address a geographic scale that is significant.
37. In selecting priority areas for intervention, consideration should also be given to developing an intervention strategy that addresses the phasing of different interventions in different areas. Since a full-scale intervention programme will take several years, careful consideration should be given to an intervention strategy that involves rolling out and piloting different interventions in different areas to minimise conflict between areas that have benefitted from interventions (installation of ceilings, provision of subsidised appliances, LPG, etc.) and areas that may still be waiting to benefit from these interventions.

Affected communities should be consulted in designing and implemented the Strategy

38. Perhaps the most worrying omission is the absence of a strategy for consultation with affected communities. Communities that may benefit from the draft Strategy are presumably recognised as stakeholders in the draft Strategy, but no consideration appears to have been given to involving them in the development of the intervention strategy. Not only does this violate the Promotion of Administrative Justice Act, but any interventions developed without consultation with those most impacted are unlikely to have success.
39. Affected communities are clearly best placed to make recommendations as to appropriate interventions. Involving the affected communities is essential in determining the effectiveness of interventions that will be adopted and implemented in affected areas. The adoption and sustained use of interventions cannot be guaranteed without community buy-in and involvement in determining the interventions appropriate for each area. Therefore, we and our clients recommend that extensive public consultation processes be included as part of the Action plan objectives in activity 1b of the draft Strategy.<sup>21</sup>
40. As discussed in the next section, there should also be adequate public participation during the monitoring and evaluation of the Strategy.

The Strategy's monitoring, evaluation and reporting requirements are inadequate

41. Activity 3b in section 7 of the Action Plan on reporting, in the draft Strategy, requires that specified government agencies report on the implementation of various aspects of the Strategy.<sup>22</sup> There is only one action item related to evaluation of the overall Strategy—a general statement about evaluating health impacts of the Strategy's interventions.<sup>23</sup> Unfortunately, this falls short of the type of monitoring and evaluation necessary to ensure the effective implementation of this Strategy.
42. The draft Strategy explains, under activity 3a and 3b, that ambient air quality monitoring in dense low-income settlements will be done by using existing monitoring stations, and this data will be used to evaluate any air quality improvements in the prioritised area.<sup>24</sup> There is no indication whether there is indoor monitoring data that can provide the details of the exceedances in the households currently.

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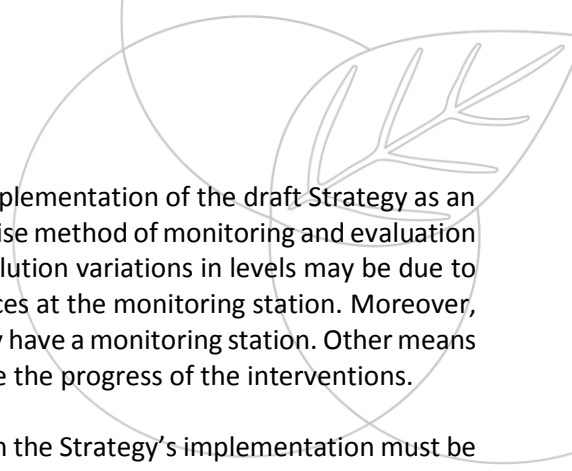
<sup>21</sup> Draft Strategy at p38

<sup>22</sup> Draft Strategy p42

<sup>23</sup> Draft Strategy p42

<sup>24</sup> Draft Strategy p29



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43. Further, activity 3a in the draft Strategy identifies annual reporting on implementation of the draft Strategy as an indicator.<sup>25</sup> It must be noted that the monitoring of air quality is an imprecise method of monitoring and evaluation of the progress of interventions. Day to day and even annual average pollution variations in levels may be due to varying meteorology or the varying contributions of other pollution sources at the monitoring station. Moreover, comparatively few areas that may be the target of an intervention strategy have a monitoring station. Other means of monitoring, such as indoor monitoring, should also be used to evaluate the progress of the interventions.
44. Moreover, the process by which the government evaluates and reports on the Strategy's implementation must be participatory and include input from all stakeholders, including the affected communities. Each annual report should be subject to public review and comment, or at the very minimum, presented during public hearings where all stakeholders have an opportunity to engage with the government agencies implementing the Strategy. By including public participation during the evaluation of the Strategy, the government would have a more comprehensive understanding of what is working and not working, whether the interventions are appropriately designed to meet the Strategy's objectives, and what changes should be made in future.
45. In addition, there is no provision in the Strategy for updating and revising the strategy based on lessons learned and new information. We recommend that the Strategy include a provision that requires that it be formally reviewed and updated periodically (with public participation) - at a minimum every 5 years.
46. We and our clients suggest that, in addition to air quality data, annual surveys of household fuel use and data on the fuel market and distribution systems be used to track and report on progress in reducing emissions. We propose that incentives be provided to get people in the affected communities to report on the measures that they are taking to reduce domestic fuel burning and other forms of indoor pollution. This will also assist with collating data on the effectiveness of the interventions. Incentives in the form of rebates should also be provided to everyone that shifts from using domestic fuel to a cleaner form of energy

#### Proposed interventions, fuel alternatives and energy costs

47. The draft Strategy should look into other fuel alternatives such as biogas. Biogas has the potential to be a good and affordable fuel source that could also address waste problems. Emphasis should be placed on finding sustainable interventions for the affected communities, and their involvement and ownership of the interventions identified is crucial.
48. Several studies have shown that households using "dirty fuels" in fact pay more for useful energy, for example to boil a litre of water or to cook a pot of food, because of the energy inefficiency of the devices used and because of the relatively high prices of these fuels. The draft Strategy should adopt a more comprehensive approach to the question of cost and affordability of clean energy.
49. The draft Strategy states, on page 24-25, that:

*In prioritising and planning for activities such as electrification, road-surfacing, waste collection services, tree-planting and general "greening" activities, priority should be given to low-income communities*

50. We and our clients question the effectiveness of some of these proposed measures - like tree planting and waste collection services - to reduce particulates and the key emissions of dirty domestic fuels, since there is no evidence that they actually do. While we agree that road surfacing and providing free basic electricity would be helpful in reducing emissions in densely populated areas affected by domestic fuel burning, we believe that the draft

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<sup>25</sup> Draft Strategy p31

Strategy needs to go further and outline how these proposed intervention measures will be effected, what the criteria for determining who gets the free electricity is, and how the areas of intervention will be prioritised.

The Strategy should provide for clearer time-bound objectives

51. Activity 1a of the draft Strategy in section 7 of the Action plan addresses the establishment of a National Coordinating Committee (NCC) on Residential Air Pollution.<sup>26</sup> Our clients would like to highlight that community-based organisations and non-profit organisations must be among the relevant stakeholders that form part of the NCC.
52. Our clients are also worried that the NCC will create an endless array of quarterly meetings, similar to the existing priority area implementation task team and multi-stakeholder reference group meetings that meet regularly, but do very little about reducing air pollution. While we acknowledge that the Action plan outlined on page 38 of the draft Strategy stipulates the expected objectives and time frames within which the activities should be conducted, these stipulated timeframes are vague. For instance, under activity 1b, the NCC is supposed to *‘[d]evelop a plan for piloting interventions in the prioritised area(s) and include the plan into specific departmental/organisational plans’* – the time frame provided for this is 2016/2017. It is not clear whether both of the mentioned activities i.e. *‘developing a plan for piloting interventions’* and *‘ensuring their inclusion in specific departmental/organisational plans’*, should be completed by the end of the 2016/2017 financial year or by the end of 2017. Much clearer timeframes should be provided for all the activities identified to achieve the objectives.
53. The Action plan indicates that the earliest that interventions will be implemented will be in 2018.<sup>27</sup> We and our clients propose that the interventions that are readily available and that will be accepted easily - such as insulated ceilings and solar cookers - be implemented immediately to reduce the use of the highly-polluting domestic fuels.
54. We and our clients further suggest that the proposed interventions in the draft Strategy be prioritised also based on their potential ability to reduce the greatest amount of air pollution, such as minimising particulate matter emissions.
55. The draft Strategy refers to offsets several times and plans to have at least 2 offset projects by 2020 under objective 2.<sup>28</sup> It even promotes “encouraging offset- projects during atmospheric emissions licensing” at local government.<sup>29</sup> Our clients are strongly opposed to so-called air quality “offsets” – as appears from the various comments our clients have made on this topic. We again dispute that air quality can be offset and that the envisaged offset measures can ever be an alternative to compliance with legislated air quality standards. What are being referred to as “offsets” are actually just corporate social responsibility actions by industry, or a form of compensation, and these cannot be considered interventions. Polluters should offset their specific pollutants and their pollution should not divert attention to indoor pollution caused by domestic fuel burning.
56. The context and link to offsets is also not clearly explained and this should be clarified.

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<sup>26</sup> Draft Strategy p38

<sup>27</sup> Draft Strategy Activity 1b p38

<sup>28</sup> Draft Strategy p30

<sup>29</sup> Draft Strategy p37

## Conclusion

57. We and our clients commend the publication of the draft Strategy as an important start to a long term plan to improve indoor pollution in dense, polluted areas for the most vulnerable people in the country.
58. Although the draft Strategy admits, in part, that poor air quality in the residential areas under consideration may be attributable to sources other than the use of dirty fuels in households, the interventions appear to be based entirely on the assumption that reducing or eliminating the household use of dirty fuels will solve the problem of observed exceedances of ambient air quality standards in residential areas. Without addressing the contribution of other air pollution sources to poor air quality in these residential areas, this will evidently not be the case. The draft Strategy should acknowledge that concerted efforts are required to improve ambient air quality by eliminating both domestic fuel burning and reducing pollution from other industrial sources in these areas.
59. In order to achieve the goals of the draft Strategy, and in light of the above submissions, it is our clients' recommendation that the draft Strategy be amended to provide for:
- 59.1. rigorous and reliable baseline data that indicates:
    - 59.1.1. the number of households, list of harmful pollutants, the quantity of each of the dirty fuels used in each settlement and the current indicators of energy inefficiency;
    - 59.1.2. a plan to collate comprehensive baseline data from all interrelated sectors, including StatsSA, Department of Health, Department of Energy, Department of Housing and Settlements, academic institutions and other institutions that may have data in that regard. The draft Strategy should include an obligation for government departments to share data that would be useful in finding the best solutions for reducing indoor pollution in densely polluted settlements;
    - 59.1.3. a strategy to track progress of interventions to replace dirty fuels with clean fuels, or to track other interventions such as the installation of solar water heaters and ceilings in existing houses without ceilings;
    - 59.1.4. how the benefits and intervention success will be quantified; and
    - 59.1.5. data on the other sources of poor air quality in affected areas as identified in paragraph 2.7<sup>30</sup> of the draft Strategy in order to highlight how much of the pollution is caused by these sources;
  - 59.2. an indication of the impact of indoor pollution in the densely populated critical areas that is qualified with reference to particular monitoring stations and particular residential areas;
  - 59.3. current data of the health effects of indoor pollution in the densely populated areas, and how much this accounts for the global burden of disease in South Africa;
  - 59.4. the provision of indoor monitoring data that can provide the details of the exceedances in the households currently;
  - 59.5. tracking or monitoring of future fuel to be conducted in order to monitor the success of interventions;
  - 59.6. a strategy for extensive public participation with affected communities;
  - 59.7. the context and link to offsets to be explained, with the proviso that offsets can never be an alternative to legal compliance;
  - 59.8. community-based organisations and non-profit organisations form part of the NCC;
  - 59.9. a clear mandate and timeline limit within which the NCC should achieve the objectives of the Strategy;
  - 59.10. an outline of how proposed intervention measures will be effected, what the criteria for determining who gets what intervention will be, and how the areas of intervention will be prioritised;
  - 59.11. interventions that are readily available to be implemented immediately to prevent the prevailing situation from deteriorating further;
  - 59.12. participation and involvement by stakeholders and affected communities in the evaluation, monitoring and reporting process by government on the Strategy's implementation; and

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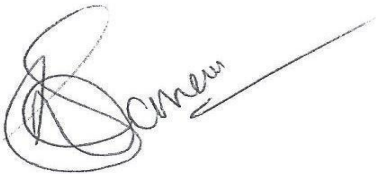
<sup>30</sup> Draft Strategy at p18

59.13. a provision that requires that the Strategy be formally reviewed and updated periodically (with public participation)- at a minimum every five years.

60. Kindly contact us, should you require any further information or have any questions.

Yours sincerely

**CENTRE FOR ENVIRONMENTAL RIGHTS**

A handwritten signature in black ink, appearing to read 'S. Kamanja', with a long horizontal stroke extending to the right.

per:

**Sylvia Kamanja**  
**Attorney**

Direct email: [skamanja@cer.org.za](mailto:skamanja@cer.org.za)