

# Commentary

## Clean energy can save lives

Rico Euripidou

GroundWork, Pietermaritzburg

<http://dx.doi.org/10.17159/2410-972X/2016/v26n2a7>

*“Tackling climate change could be the greatest global health opportunity of the 21st century”*— The Lancet and University College London commissions on climate change, 2015.

Nearly all aspects of modern life, in all parts of the world, benefit from access to energy. From powering equipment, to provision of medical care, and prolonging daylight hours to enable studying, energy access can support and enhance health in myriad ways. However, there are important health considerations in the generation, distribution, and consumption of various energy sources such as coal (used primarily for electricity generation in South Africa) arising from their impact on social, environmental, and economic systems. Leading medical journals and health professional organizations have begun to endorse the evidence and amplify the message that air pollution poses serious challenges to global public health and therefore must be addressed as a public health issue.

According to the World Health Organization’s (WHO) most recent estimates, over six million premature deaths per year result from exposure to air pollution, making it the world’s largest environmental health risk<sup>1,2</sup>. Approximately half of the burden is attributable to outdoor air pollution, which comes from the combustion of fossil fuels and contributes to deaths due to ischaemic heart disease, stroke, chronic obstructive pulmonary disease, lung cancer and respiratory infections. Using these data, new research from the World Bank (Air Pollution: Strengthening the Economic Case for Action), concludes that air pollution kills 5.5 approximately million people per year, one in every 10 deaths worldwide<sup>3</sup>.

Furthermore the World Energy Outlook (WEO) Special Report explores links between energy, air pollution and health and reiterates that air pollution is a major public health crisis, *“with many of its root causes and cures to be found in the energy sector”*. Findings attribute 6.5 million deaths per year to poor air quality. The report concludes that without changes to the way that the world produces and uses energy, morbidity and mortality from air pollution on human life is set to rise<sup>4</sup>.

The burning of fossil fuels is also responsible for the majority of greenhouse gas emissions that contribute to climate change. By causing or intensifying extreme weather events, food and water insecurity and the migration of infectious diseases, climate change exacerbates global health challenges.

An estimated 12.6 million people died as a result of living or working in an unhealthy environment in 2012 – nearly 1 in 4 of total global deaths, according to estimates from WHO<sup>5</sup> with non-communicable diseases contributing to the largest share of environment-related deaths. The environmental risk factors examined include climate change and air pollution, which can be mitigated with proven, cost-effective measures such as increasing access to low-carbon energy technologies, reducing the use of solid fuels for cooking, improving urban transit and urban planning, and building energy-efficient housing.

*“A healthy environment underpins a healthy population,”* says Dr Margaret Chan, WHO Director-General. *“If countries do not take actions to make environments where people live and work healthy, millions will continue to become ill and die too young.”*

It is thus necessary to highlight the global evidence base that demonstrates that the use of fossil fuels for energy generation has serious implications for human health through its contribution to both local pollution and global climate change. These health impacts also accrue into a heavy and largely unaccounted-for economic burden borne by communities, governments, and public health systems. Health and climate co-benefits can be achieved by reducing dependence on fossil fuels and transitioning to clean, renewable energy. The environmental and public health sector can and should thus play an important role

in calculating and articulating costs of energy choices and improving public understanding of the health impacts of energy choices with the aim of strengthening policy responses.

The global public health community has a unique opportunity to serve as an interlocutor between the scientific evidence on the harmful effects of fossil fuel-based energy generation and the health benefits of policies that mitigate air pollution by transitioning to clean, renewable energy. Around the world, public health professionals are beginning to engage on the health impacts of air pollution and climate change by advocating for health impacts to be considered in energy decision making, and promoting the health cost savings afforded by healthier energy choices. In countries, including for example, India, South Africa, Poland, the Philippines, Australia, the United States and China, health professionals are increasingly documenting the negative health impacts of the dirtiest forms of energy such as coal, and the health benefits of clean, renewable energy such as solar and wind.

Public health associations and other health institutions in many of these countries are taking positions that advocate for a move away from fossil fuels toward a healthy energy future.

In a parallel initiative leading up to the 2015 UN Climate Change Conference in Paris, the *Paris Platform for Healthy Energy*<sup>6</sup> made an urgent health sector-based appeal in over eighty countries, including South Africa, calling for a shift from fossil fuels to renewables, citing health and financial benefits. The *Paris Platform for Healthy Energy* reflects a growing consensus among health professionals and organizations across the globe that shifting to clean, renewable energy will protect public health from both global climate change and the impacts of local pollution.

In doing so, the health sector is making it very clear that urgent global action is needed to limit greenhouse gas emissions. This would not only reduce health risks from climate change but also yield large health benefits and cost savings from prevented illness and premature death due to air pollution.

*Rico Euripidou trained as an epidemiologist and works as an Environmental Health Campaigner at groundWork, Friends of the Earth South Africa. He is also a member of the The Healthy Energy Initiative <http://www.healthyenergyinitiative.org>, a global collaboration of health professionals, health organizations, and health researchers engaging in science-based advocacy for a move away from fossil fuel-based power generation—particularly coal—and toward clean, renewable, healthy energy options.*

<sup>1</sup>Seven million premature deaths annually are linked to air pollution: <http://www.who.int/mediacentre/news/releases/2014/air-pollution/en/>

<sup>2</sup>WHO releases country estimates on air pollution exposure and health impact: <http://www.who.int/mediacentre/news/releases/2016/air-pollution-estimates/en/>

<sup>3</sup>The World Bank and Institute for Health Metrics and Evaluation University of Washington, Seattle (2016). Air Pollution: Strengthening the Economic Case for Action <http://documents.worldbank.org/curated/en/781521473177013155/pdf/108141-REVISED-Cost-of-PollutionWebCORRECTEDfile.pdf>

<sup>4</sup>International Energy Agency (IEA) 2016. World Energy Outlook Special Report. Energy and Air Pollution. [https://www.iea.org/publications/freepublications/publication/WorldEnergyOutlookSpecialReportEnergyandAirPollution\\_Executivesummary\\_EnglishVersion.pdf](https://www.iea.org/publications/freepublications/publication/WorldEnergyOutlookSpecialReportEnergyandAirPollution_Executivesummary_EnglishVersion.pdf)

<sup>5</sup>Preventing disease through healthy environments: a global assessment of the burden of disease from environmental risks [http://www.who.int/quantifying\\_ehimpacts/publications/preventing-disease/en/](http://www.who.int/quantifying_ehimpacts/publications/preventing-disease/en/)

<sup>6</sup>The text of the Paris Platform for Healthy Energy, along with the full list of endorsements and testimonials, is available at <http://www.healthyenergyinitiative.org/platform>