

Opinion: Air pollution's human toll is significant – and growing

By Simon Upton, Project Syndicate, adapted by Newsela staff on 08.23.16

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Residents wear face masks as smog hits the city on December 21, 2015 in Shanghai, China. James D. Morgan/Getty Images

PARIS – Air pollution takes years off people’s lives. It causes substantial pain and suffering to both adults and children. It also damages food production, at a time when we need to feed more people than ever. Pollution is not just an economic issue, it is also a moral one.

Air pollution can be produced both outdoors and indoors. For the poorest families in many countries, indoor smog from coal- or dung-fired cooking stoves is typically the more serious problem. As the countries become more modern and start to use electricity or motors, and begin to build cities, outdoor air pollution becomes the bigger issue.

Cleaner technologies are available, with the potential to improve air quality considerably. But policymakers tend to focus myopically on the costs of action, rather than the costs of inaction. Economic growth and rising energy demand are set to fuel a steady rise in emissions of air pollutants and a rapid rise in concentrations of particulate matter (PM), or poisonous air particles. Therefore, this approach is not a good one.

Number Of Deaths Could Double Or Triple By 2060

A new report was recently released by the OECD, or Organisation for Economic Co-operation and Development. The report estimates that outdoor air pollution will cause 6-9 million unnecessary deaths annually by 2060, as compared to three million deaths in 2010. That is equivalent to a person dying every 4-5 seconds. Added together, more than 200 million people will die early in the next 45 years as a result of air pollution.

There will also be more pollution-related illnesses. New cases of bronchitis in children ages 6 to 12 are forecast to soar to 36 million per year by 2060, from 12 million today. For adults, we predict 10 million new cases per year by 2060, up from 3.5 million today. Children are also being increasingly affected by asthma. All of this will translate into more pollution-related hospital admissions, projected to rise to 11 million in 2060, from 3.6 million in 2010.

These health problems will be concentrated in densely populated areas with high PM concentrations. Many of the affected areas will be cities in China and India. Mortality is also set to reach high levels in Eastern Europe, the Caucasus region, and other parts of Asia, such as South Korea. In these places, aging populations are exposed to air pollution that poses huge risks for the elderly.

Air Pollution's Dollar Costs Are Huge

The impact of air pollution is often discussed in dollar terms. By 2060, 3.75 billion working days per year could be lost due to the adverse health effects of dirty air – what economists call the “disutility of illness.” Businesses and governments around the world could lose \$2.6 trillion every year by 2060 from lower worker productivity, higher health spending, and lower crop yields.

Massive as they are, however, the dollar figures do not reflect the true costs of air pollution. Avoidable death from breathing in small particles and toxic gases, and the pain and suffering from respiratory and cardiovascular diseases, do not have a market price. Nor does the experience of constantly inhaling foul-smelling air, or forcing your child to wear a face mask just to play outside. These burdens weigh far more heavily on people than any price tag can represent.

Nonetheless, the truth remains that policymakers tend to respond more to hard figures than to abstract experiences. So the OECD examined many economic studies on air pollution to quantify what people’s health is worth to them.

People Will Pay To Reduce Their Risk Of Dying

On average, individuals would be prepared to pay around \$30 to reduce their annual risk of dying prematurely by one in 100,000. Using well-established techniques, these “willingness-to-pay” figures were converted into an overall value of avoidable deaths caused by outdoor air pollution. These calculations are illustrated in the OECD’s Mortality Risk Valuation in Environment, Health and Transport Policies, among other reports.

By that measure, the global cost of deaths caused by outdoor air pollution would reach a staggering \$18-25 trillion a year by 2060. Arguably, this is not “real” money, as the costs are not related to any market transactions. But it does reflect the value people put on their very real lives. It also reflects the value they would put on policies that would help to delay their very real deaths.

It is time for governments to stop fussing about the costs of efforts to limit air pollution and start worrying about the much larger costs of allowing it to continue unchecked. Their citizens’ lives are in their hands.