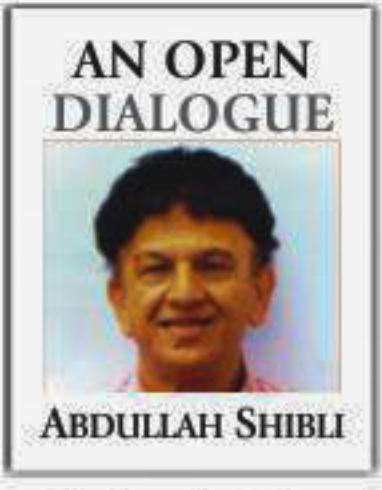


Can cleaning up air (pollution) help achieve the SDGs?



AN OPEN DIALOGUE
ABDULLAH SHIBLI

AIR pollution in big cities of Bangladesh, particularly Dhaka and Chittagong, is an ongoing concern for all. Only recently, WHO ranked Dhaka's air quality as the third worst, behind New Delhi and Cairo, in a study of megacities with a population of 14 million or more.

Not only the poor but the urban middle class too breathe the foul air, when they have to go to work or want to run errands by travelling on foot, in a rickshaw, or other means of public transportation. People in some areas of Dhaka suffer more than others. As an example, if you travel through any neighbourhood of Dhaka, be it Mirpur, Agargaon, Badda or Uttara, you see areas which have been dug up for development work and construction materials which are exposed to the elements and cause environmental hazards. And if you are stuck in traffic, God forbid, in that case, in addition to time spent fretting about the delay and the noise, you also need to cover your nose to keep out the smell of diesel and petrocabons as well as dust.

The ill effects of air pollution are pretty well known. As scientists researching its health effects on human beings study more diligently using longitudinal data that was previously not accessible, we learn more about the pernicious effects of different types of air pollutants. With newer scientific methods available now, the linkages between air pollution and health are being discovered and established with a greater degree of certainty.

It was known for a long time that air pollution causes many types of respiratory diseases, including asthma and emphysema. The causal link between SPM and heart attacks and strokes has also come under scrutiny, and



PHOTO: AMRAN HOSSAIN

On January 7, 2018, Dhaka's Air Quality Index was at 330 which implies that the capital's air quality was "extremely unhealthy" and stayed that way for four consecutive days.

now is being systematically analysed and proven. However, very few epidemiological studies have addressed the association between air pollution and cognition in older adults who breathed polluted air.

In a 2014 study, however, in the prestigious scientific journal *Epidemiology*, it was found that traffic-related pollution in greater London was associated with declining cognitive functions over time among study participants who had an average age of 66. In a more recent study, researchers from US and China found that long-term exposure to air pollution negatively impacts the brain. This result is based on the performance in nationwide math and word-recognition tests taken by a large sample of more than 25,000 people across 162 Chinese counties. This study "further amplifies the need to tackle air pollution now to protect the health of particularly the young and the elderly population," said Heather Adair-Rohani of the WHO public health and

environment unit.

Is there then a safe level for air pollutants that is internationally accepted? Bangladesh's Department of Environment (DoE) has embraced the Air Quality Index (AQI), a standard followed by the US Environmental Protection Agency. According to DoE, the range of 51 to 100 should be labelled as "moderate" and the 101 to 150 range should be labelled as "Caution for sensitive individuals" or one that indicates that there are likely to be consequences for children, particularly infants, the elderly with chronic lung or heart disease, and people who will be working hard in the ambient air. AQI of 151 to 200 is unhealthy for everyone, and over 200 is very unhealthy.

AQI in Bangladesh's cities has some seasonal variations. During the rainy season, from mid-April to mid-October, air quality is in the acceptable range thanks to the rain

which washes away many of the pollutants, particularly SPM. During the rest of the year, i.e. the drier months when there is very little rainfall, the AQI at many points in Dhaka is found to be above 200, which is very unhealthy for those working outdoors, including construction workers, rickshaw-pullers, and road-side peddlers. The more vulnerable segment of city-dwellers—children, elderly and the sick—need to stay indoors in a "clean" environment. However, even for healthy adults, prolonged exertion requiring outdoor activity for several hours and involving heavy breathing or exertion should be discouraged. As an alternative, heavy exertion during certain hours of the day may be minimised to reduce possible side effects including unusual coughing, chest discomfort, wheezing, breathing difficulty, or unusual fatigue. The red signals include coughing and shortness of breath, eye and skin irritation, breathing problems and headache.

Let us consider a data point in time from last winter. On January 7, 2018, Dhaka's air pollution levels were at 330 which implies that the capital's air quality was "extremely unhealthy" and stayed that way for four consecutive days.

A report issued by the prestigious Royal College of Physicians (RCP) of UK cautions that air pollution may be associated with a much wider range of health conditions. Some health effects associated with air pollution are well recognised such as increase in hospital admissions and deaths from cardiovascular diseases, respiratory diseases and lung cancer. "We know that those with pre-existing cardiovascular and respiratory diseases and older people are particularly at risk. (This) report considers the evidence for effects of air pollution on diabetes and neurological disease, as well as how exposure during pregnancy may be associated with low

birth weight and pre-term births."

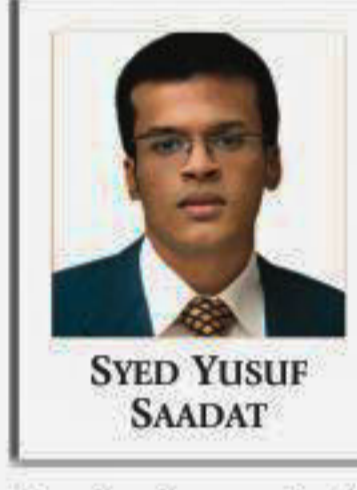
Air pollution and the SDGs are closely intertwined. While some have pointed out that air pollution was deemphasised in the SDGs, because there are no headline goals on air pollution, it is nonetheless mentioned in at least two targets—SDG 3 (health) and SDG 11 (cities). One of these critics, the Institute for Global Environmental Studies, concedes, "A broad perspective illustrates that air pollution is linked in principle to most of the SDGs."

Another group of scientists led by Professor Andy Haines of the London School of Hygiene and Tropical Medicine detail how fighting air pollution can help achieve global development and climate goals in a paper called "Short-lived climate pollutant mitigation and the Sustainable Development Goals". Dr Haines goes even further. "Many short-lived climate pollutant mitigation measures provide multiple near-term SDG benefits, which can generate an appetite for even greater action," he said.

In one specific example, the authors describe how providing affordable, clean household energy such as modern stoves for poor households can reduce black carbon emissions during cooking and "improve household incomes (SDG 1), educational outcomes (SDG 4), access to modern energy (SDG 7), physical security and opportunities for women (SDG 5) and contribute to the development of sustainable cities and housing (SDG 11). At the same time, clean household energy technologies reduce exposure to household air pollution (SDG 3), and contribute to reduced climate warming (SDG 13) and deforestation (SDG 15)."

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The value of a woman's time



THE word "economics" originates from the Greek "oikonomikos", which roughly means management and care of the household. From this etymology, it may appear that women, who are often in charge of managing and caring for the household, would be highly regarded in the discipline of economics. Yet in conventional economics, the unpaid housework of women is completely disregarded.

This major flaw in national income accounting methodology is a globally pervasive phenomenon which is also prevalent in Bangladesh. Since the unpaid labour of Bangladeshi women is not counted, it sends a distorted message about women to policymakers. Thus unpaid work is tantamount to unacknowledged work and unappreciated work. When a woman chooses to become a homemaker, she becomes the subject of discrimination by family and society simply because she does not work. Such discrimination gradually evolves into domestic violence. Lack of true valuation of women's unpaid work is holding back a transformation in the social attitudes towards women.

Women are disproportionately under-represented in the national income accounts since most women work in the informal sector, or work at home for no pay. According to the International Labour Organization, globally around one third of total workers in the informal sector are female. In Bangladesh, 95.4 percent of women work in the informal sector. Since wages are low in the informal sector and non-existent in the household, the economic contribution of women is misrepresented.

Nevertheless, the work that women do at home—such as household chores, caring for children, and looking after the elderly—inherently has immense value since it creates social capital. Failure to recognise the value of women's unpaid



The work that women do at home has immense value since it creates social capital.

SOURCE: WWW.ENERGYFORDEVELOPMENT.COM

It is intuitively clear that the unpaid work of Bangladeshi housewives has economic value. However, the unfortunate tendency in economics is to take the monetary economy as the only basic thing to measure.

work is failure to recognise the value of women themselves. Therefore, unpaid work is a quintessential element defining the power structure between men and women and often forms the premise for female subjugation. If women's unpaid work is recognised, then their actual contribution to the economy could be evaluated.

A number of published studies have attempted to measure the value of the unpaid labour of women in Bangladesh. The pioneering study in this field was a collection of three essays published in one volume by Shamim Hamid in 1996. In the first essay, Hamid pointed out that women are missing from traditional measures of aggregate economic output, and that such measurements are urgently

required. Hamid utilised a replacement cost approach on primary data collected through a survey of 30 villages in Bangladesh. Hamid found that if the unpaid labour of women were to be incorporated into national income accounting, then the 1989-1990 Gross Domestic Product (GDP) of Bangladesh would increase by 29 percent.

In another study conducted by the Centre for Policy Dialogue (CPD) and Manusher Jonno Foundation (MJF), it was found that based on the replacement cost method, the estimated value of women's unpaid work was equivalent to 76.8 percent of GDP of FY2013-14. According to the willingness to accept method, the corresponding estimate was equivalent to 87.2 percent of GDP of FY2013-14. These figures were 2.5 to 2.9 times

higher than the income of women received from paid services. A number of other studies have also attempted to estimate the value of women's unpaid labour in Bangladesh using the replacement cost approach. All of these studies unanimously point out the fact that women in Bangladesh make a significant contribution to the economy.

It is intuitively clear that the unpaid work of Bangladeshi housewives has economic value. However, the unfortunate tendency in economics is to take the monetary economy as the only basic thing to measure. Despite the fact that housewives probably work harder than anyone else in the population, they still do not get paid for it. In economics, unless there is a market price for something, it does not get measured in the national accounts. This leaves women's work in the household out of the national accounts. Women's housework is enormously productive work, both for human welfare and for the growth of the economy. Yet it does not get counted.

Measuring the value of a housewife's time and her unpaid labour is a prerequisite for highlighting women's silent contribution to the economy. The people who are visible as contributors to the economy are the people who will be visible when we make policy. If women are not visible as contributors to a nation's economy, then they are not going to be visible in the distribution of benefits.

It is imperative to bring to attention the pressing issue of widening the realm of national income accounting in Bangladesh so as to incorporate the unpaid labour of women. Urgent steps need to be taken to enhance the social stature of women by acknowledging that the work that women do has real economic value. It is hoped that recognition of the value of women's unpaid work will induce a revolution in the attitudes towards women in Bangladesh, which will subsequently spread all over the world.

Syed Yusuf Saadat is a Research Associate at the Centre for Policy Dialogue (CPD).

ON THIS DAY IN HISTORY

SEPTEMBER 9, 2015

QUEEN ELIZABETH BECOMES LONGEST REIGNING BRITISH MONARCH

She broke the record set by Queen Victoria, who ascended to the throne on June 20, 1837, and reigned for 63 years, 7 months and 2 days.

CROSSWORD BY THOMAS JOSEPH

ACROSS

- 1 Bluegrass instrument
- 6 Prepared to propose
- 11 Audibly
- 12 AM/FM device
- 13 US facility in Cuba, for short
- 14 Spanish resort isle
- 15 NFL players
- 17 Wee bit
- 18 Question while covering someone's eyes
- 22 Coup d'—
- 23 Spellbound
- 27 Twangy
- 29 Be in accord
- 30 Charlike of "Tully"
- 32 Play parts
- 33 Toy with tracks
- 35 Cow chow
- 38 Meringue base
- 39 Bring to bear
- 41 Rome's nation
- 45 Parcel out
- 46 Ballot caster
- 47 River part
- 48 Fencing swords

DOWN

- 1 Chips buy
- 2 Boxing's "Greatest"
- 3 Word of denial
- 4 Boost
- 5 Smells
- 6 Eighth avatar of Vishnu
- 7 Arrest
- 8 Fix copy
- 9 Minnelli of "Cabaret"
- 10 Frog's cousin
- 16 Have debts
- 18 Nice fellow
- 19 Nevada neighbour
- 20 Naturalness
- 21 Church
- 24 Curving paths
- 25 Singer Seeger
- 26 Final, for one
- 28 Singer Lynn
- 31 Old horse
- 34 Words of surrender
- 35 Nail part
- 36 Wheel bar
- 37 Shout
- 40 Turn bad
- 42 Had lunch
- 43 Director Spike
- 44 Cal. spans

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YESTERDAY'S ANSWER

S	L	E	D	S	B	O	O	B	S
H	A	N	O	I	A	R	R	O	W
O	T	T	E	R	T	E	N	S	E
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BEETLE BAILEY BY MORT WALKER

WANNNA GO OUT WITH ME?
 YOU KNOW I'M BEETLE'S GIRLFRIEND
 AND BEETLE IS YOUR BEST FRIEND
 YEAH, I KNOW
 SO, DO YOU WANT TO GO OUT?
 GREG MORA WALKER
 WWW.MORTWALKER.COM

BABY BLUES BY KIRKMAN & SCOTT

BOY! THIS PLACE IS PACKED!
 I THINK YOU SHOULD BRIBE THE HOSTESS TO GET US A TABLE.
 ZOE, THIS IS A THEME RESTAURANT, NOT THE WALDORF ASTORIA!
 JUST SUIP HER SOME CASH, OR WE'LL NEVER GET TO EAT!
 SOMETHING AWAY FROM THE BALL PIT WOULD BE NICE.
 UM, THAT'S ONLY A DOLLAR.