

Enviro Monitor

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Air quality



- Health costs of pollution in India 8 times government's fuel subsidy
- Soon, industries could buy and sell PM 2.5 emission permits
- Worsening congestion, spiralling pollution choke Delhi
- Air pollution may cause 60,000 deaths in 2030

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Water quality



- River pollution: Fine for dumping waste; Live monitoring of industries polluting Ganga
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Water stress



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- Water level in 91 reservoirs rises to 39 per cent



Health costs of pollution in India 8 times government’s fuel subsidy. India spent \$16.9 billion on oil, gas and coal subsidies in 2013 and 2014 but the health costs to meet the burden of air pollution-linked diseases was eight times more at \$140.7 billion, says the report, [Hidden Price Tags](#). The report prepared by the Health and Environment Alliance assessed the spending of seven economically powerful countries on fossil fuel subsidies, and the health costs associated with fossil fuel subsidies. According to the report,

India can provide 375 million households with solar lamps or train nearly 32,000 extra doctors for rural areas with its annual spend on fossil fuels subsidies. This was assessed considering that each solar lamp costs about \$22.5 and the recent estimate of All India Institute of Medical Science which put the cost of training a doctor at Rs 1.7 crore. The subsidy amount could fund 24% of the total money needed to implement healthcare coverage for all Indians, the report suggests.

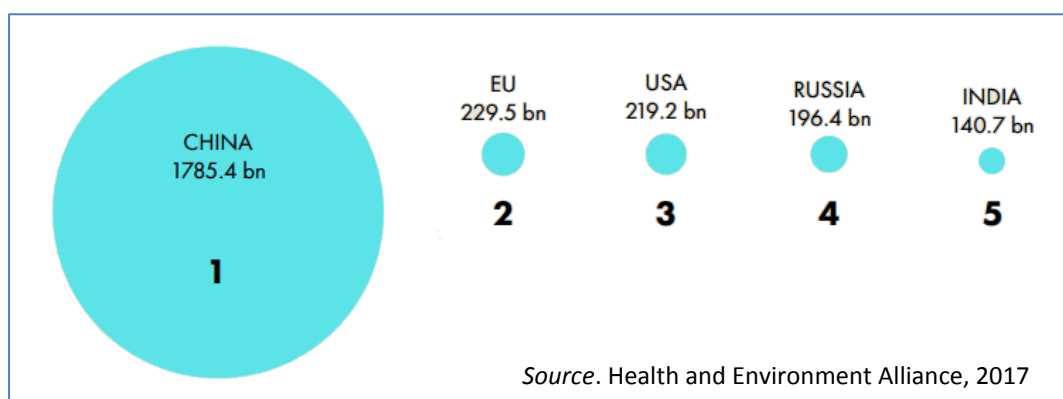


Figure. Top 5 within G20: health costs from fossil fuels

Soon, industries could buy and sell PM 2.5 emission permits. NITI Aayog is zeroing in on a "cap and trade" scheme to control air pollution from industries. This will involve a market for industries to buy and sell permits that allow them to emit a certain amount of particulate matter (PM 2.5). Many such schemes for local pollutants like sulphur dioxide (SO₂) and oxides of nitrogen (NO_x) have already been implemented in the US like the Acid Rain Programme of 1995. Energy Policy Institute at the University of Chicago is conducting a feasibility study and drafting the policy for NITI Aayog. According to EPIC-India, such a scheme can be implemented in any industrial cluster or a city with a number of industries like those in NCR, which have a direct impact on pollution levels in Delhi.

Worsening congestion, spiralling pollution choke Delhi, says study. For daily commuters in Delhi, what has been the general experience is now being backed by hard statistics. The Centre for Science and Environment’s assessment of travel time and traffic speed in Delhi shows that the city is in the grip of a worsening case of congestion and pollution crisis. Gauging was done based on hourly and daily travel time and speed derived from Google Map which showed low traffic speed, near disappearance of non-peak hours, weekends with higher congestion, and higher air pollution with lower traffic speed during peak hours. The study shows that the average traffic speed is 50 to 60 per cent lower than the

South Delhi might see cleaner stretches without dust soon as the South Delhi Municipal Corporation has unveiled mechanical road sweepers, automatic sweeping machines and other sophisticated machines that will be used for night-cleaning of streets and markets.

designed speed limit and 35 to 48 per cent lower than the regulated speed of 40 to 50 km per hour.

Air pollution may cause 60,000 deaths in 2030. Climate change, if left unaddressed, is expected to increase air pollution-related deaths by nearly 60,000 in 2030 and 2,60,000 in 2100 globally, a study has claimed. According to the study, hotter temperatures speed up the chemical reactions that create air pollutants like ozone and fine particulate matters, which impact public health. The [study](#) has been published in *Nature Climate Change*.

[The Asian Age](#), 11 July 2017 | [Hindustan Times](#), 22 July 2017 | [The Times of India](#), 23 July 2017 | [The Economic Times](#), 1 August 2017 | [The Times of India](#), 2 August 2017



100 global firms emit nearly 1 trillion tonnes of greenhouse gas. Investors in fossil fuel companies carry influence over one-fifth of industrial greenhouse gas (GHG) emissions worldwide, says [The Carbon Majors Database](#), which stores GHG emissions data. CDP’s *Carbon Majors Report 2017* is the first in an ongoing series of publications aimed at using this database to highlight the role that corporations can play in driving the global energy transition. In 2015, a fifth of global industrial GHG

emissions were backed by publicly listed investment. The scale of emissions signals the importance and potential of investor engagement in the fossil fuel industry. Many oil and gas majors are already developing scenarios to comprehend their potential role in the future energy system.

Table. Top 10 greenhouse gas emitters since 1988

Position	Company	Percentage of global industrial GHG emissions
1	China (Coal)	14.3%
2	Saudi Arabian Oil Company (Aramco)	4.5%
3	Gazprom OAO	3.9%
4	National Iranian Oil Co	2.3%
5	ExxonMobil Corp	2.0%
6	Coal India	1.9%
7	Petroleos Mexicanos (Pemex)	1.9%
8	Russia (Coal)	1.9%
9	Royal Dutch Shell PLC	1.7%
10	China National Petroleum Corp	1.6%

Source: Carbon Majors Report 2017

US isolated as the rest of G-20 commits to Paris climate pact. The differences between the US and the other countries at the Summit were apparent in two paragraphs of the Hamburg Declaration — one outlining the American position and the other underlining the position of the others, including India’s. The G20 joint statement said, “We take note of the decision of the United States of America to withdraw from the Paris agreement. The USA announced it will immediately cease the implementation of its current nationally-determined contribution and affirms its strong commitment to an approach that lowers emissions while supporting economic growth and improving energy security needs”.

Environment ministry approves climate change projects in Rajasthan, Gujarat and Sikkim. The Environment Ministry approved projects aimed at addressing the vulnerabilities arising out of climate change in Rajasthan, Gujarat and Sikkim. The National Steering Committee on Climate Change, at a meeting, approved three Detailed Project Reports submitted by the states for funding under the National Adaptation Fund for Climate Change. The projects seek to address a range of climate change vulnerabilities in the three states which are not being dealt with by the ongoing schemes of the central and state governments. In Rajasthan, the project seeks to build on the work carried out under the first phase of the 'Mukhya Mantri Jal Swavlamban Abhiyan' to enhance the adaptive capacity of the villages by making them self-reliant in terms of water requirement, said an official statement. Similarly, the project in Gujarat aims to enhance the adaptive capacity of natural resource-dependent communities to climate change in targeted villages of the Kutch district. The project in Sikkim aims to address the issue of water security which is directly identified as a climate resilience building intervention under the State Action Plan on Climate Change.

Vikhroli mangroves in Mumbai store 6 lakh tonnes of carbon, says study. One of the largest private mangrove forests in the state, the Vikhroli mangroves, stores six lakh tonnes of carbon, mostly from pollutants that humans release into the atmosphere, found a study done by a team of scientists from Godrej that owns the 1750-acre plus mangrove forest in the eastern suburbs of Mumbai. The study found that each year, 50,000 tonnes of carbon dioxide is being added and stored at the protected reserved forest. Mangroves are salt-tolerant plants that protect the coastline from inundation.

Godrej & Boyce, a subsidiary of Godrej Group, launched a mobile app on mangroves, making it a first across India and Asia. The app covers 22 mangrove and associated species found in Maharashtra and 16 species found in Vikhroli.

In KG basin, is the sea rising or land sinking? Fertile agricultural lands in the Krishna Godavari basin are turning saline, raising questions on what is primarily responsible for the phenomenon. Is land subsidence the result of reduced sedimentation flow in dammed rivers, oil and natural gas extraction, or other factors. According to retired geologist from Andhra University, Dr G Krishna Rao, who has worked in the area for over 30 years, and trained in field surveys, land subsidence could be a greater threat to the eastern coast with its fertile river deltas than sea-level rise of a few millimetres per year expected due to climate change. Field surveys done in the KG basin by Mr Rao revealed land subsidence ranging from 1.5 ft to 5.4 ft over a 30-year period, leading to seawater ingress. The resulting increase in soil salinity affected farms. Increased coastal erosion had also damaged structures.

[Indian Express](#), 9 July 2017 | [The Telegraph](#), 10 July 2017 | [Business Standard](#), 12 July 2017 | [Hindustan Times](#), 13 July 2017 | [Firstpost](#), 19 July 2017 | [The Hindu](#), 23 July 2017



India generates 1.70 million tonnes e-waste a year. India generates an estimated 1.70 million TPA (tonnes per annum) of e-waste — comprising mobiles, laptops and other electronic items — but recycles only about 4,62,896 TPA . According to the Union Environment Minister, five states — Punjab, Jammu & Kashmir, Himachal Pradesh, Goa and Madhya Pradesh — have inventoried their e-waste so far. A report by Parliament shows that 10 states contribute 70 per

cent and 65 cities more than 60 per cent of the total e-waste generated in the country. Among the 10 largest e-waste generators are Maharashtra, Tamil Nadu, Andhra Pradesh, Uttar Pradesh, West Bengal, Delhi, Karnataka, Gujarat, Madhya Pradesh and Punjab, in that order.

Among top 10 cities generating e-waste, Mumbai ranks first followed by Delhi, Bengaluru, Chennai, Kolkata, Ahmedabad, Hyderabad, Pune, Surat and Nagpur.

Gurugram, Faridabad municipal bodies sign MoU for waste management project. The municipal corporations of Gurugram and Faridabad have signed a MoU for the development of Haryana's first integrated solid waste management project. The project, costing over Rs 430 crore, will use the latest technology to collect, transport, process and dispose over 1250 tonnes of daily waste per day from both regions. This technology will also generate a minimum of 10 MW of energy daily from Refuse Derived Fuel (RDF) combustion. This would be one of the biggest projects of its kind in the country with integrated solid waste management activities including collection, transportation, processing and disposal of the solid waste along with setting up of waste to energy power plant in due course.

79% of plastic in landfills, water bodies. An international journal, *Science Advances*, of the American Association for the Advancement of Science (AAAS), has come out with a new study on plastic, quantifying its production and explaining how 79% of the total plastic waste of 6300 million metric tons (MMT) is accumulated in landfills or in the natural environment (river system and oceans). The study, [Production, Use and Fate of all Plastics Ever Made](#), highlighted that if current production and waste management trends continue, roughly 12,000 MMT of plastic waste will be in landfills or in the natural environment by 2050. Main usage of plastics is in the form of carry bags, packaging films, wrapping materials, fluid containers, clothing, toys, household applications, industrial products, engineering applications and building materials. The conventional (fossil fuel-based) plastic waste is non-biodegradable and remains on landscape for several years polluting environment because life cycle of plastic waste is incomplete and ultimately it is dumped on the land-fill sites.

[Business Standard](#), 30 June 2017 | [The Tribune](#), 1 July 2017 | [The Times of India](#), 26 July 2017



Rs 50,000 fine for dumping waste within 500 metres of Ganga, rules green court. People dumping waste in the Ganga will be liable to pay Rs 50,000 in environmental damages, said an exhaustive 543-page judgment by the National Green Tribunal on long-running Ganga clean up case announcing a slew of measures, fines, and strict deadlines. Unlike the past when the tribunal dealt with the clean up one stretch at a time, the current judgment deals with measures for the cleanup of the 500 km stretch from Haridwar to Unnao that lies in Uttar Pradesh. This stretch includes 86 drains that deposit polluted water into the river. The measures include precautionary dredging of all the drains that

discharge effluents into the river and fines for dumping waste within 500 metres of the edge of the river and its tributaries. A zone of 100 metres from the edge of the river was declared a no development zone and turned into green belts.

Industries polluting Ganga under live monitoring. As many as 716 grossly polluting industries (GPIs) in the basin are being monitored live round the clock for emission of particulate matter and gases in the air and effluents comprising total suspended solids, biochemical oxygen demand (BOD), pH, chemical oxygen demand (COD), arsenic, chromium and other harmful chemicals. The emissions and effluents are constantly monitored at the discharge points such as stacks or chimneys and outlets of effluent and sewage treatment plants. Every 15 minutes, the average value of pollutants is updated and uploaded in the master control room of Uttar Pradesh Pollution Control Board.

74,548 habitations have quality affected water. Around 74,548 habitations in the country have "quality affected" water and a programme has been launched to provide safe drinking water in the places where the natural resource is contaminated with chemicals like arsenic and fluoride. Water in around 28,000 habitations is affected by arsenic and fluoride. The Minister of Drinking Water and Sanitation said that a National Water Quality Sub Mission has been initiated at an estimated cost of Rs 25,000 crore to ensure better quality water. Under the scheme, the state governments need to send proposals which the Centre may fund.

[The Times of India](#), 5 July 2017 | [Hindustan Times](#), 13 July 2017 | [The Financial Express](#), 24 July 2017



to urbanisation, the WRI study warns. The city gets 2961 MLD (million litres per day) water against the demand for 3347 MLD. Groundwater, which is filling the gap currently, will disappear if we keep drawing 10 MLD and recharge only 2.5 MLD, the study says.

Global firm to draft Bengaluru's water policy. Amid projections that water shortage and "heat islands" will force people to abandon Bengaluru after 2025, the World Resources Institute (WRI) has taken up a study to arrive at an integrated water management plan for Bengaluru. The city, which lost 80% of surface water between 1990 and 2015, is

facing water scarcity due

More than 80% of 20 tmcft rainwater is wasted in the city every year due to lack of rainwater harvesting (RWH) infrastructure, which in turn leads to urban flooding.

Mapping of water resources. The National Bank for Agriculture and Rural Development (NABARD) has compiled a water resource map of all the 404 village panchayats in the district of Tiruchirapalli, Tamil Nadu and drawn up an action plan for improving the resources in the villages under its Krishi Jaldots (Water Ambassadors) initiative. Tamil Nadu is one of the water-stressed states in the country, where 95% of surface water and 85% of groundwater had been exploited. NABARD proposed to support the state with funding to the tune of Rs 3000 crore for rehabilitating 41,000 system tanks over a period of 5 years.

Mapping of water resources was also carried out in 14 gram panchayats of Kozhikode district, Kerala, as part of the National Water Campaign funded by NABARD. The survey found that climate change and price fluctuation of agricultural products were the major reasons for the decline in agriculture while reclamation of paddy fields and wetlands caused water shortage and drought. Increased soil erosion,

destruction of protective walls of rivers and dumping of non-biodegradable waste in water sources were pointed out in the mapping.

Water level in 91 reservoirs rises to 39 per cent. The water level in 91 major reservoirs in the country has risen to 60.906 billion cubic metres (BCM) or 39 per cent of their total storage capacity (as of 27 July 2017) from 28 per cent in the previous week. The water level in the reservoirs, including in the Nagarjuna Sagar, Indira Sagar and Bhakra dams, was 104 per cent of the storage reported during the corresponding period last year and 100 per cent of the decadal average, the Union water resources ministry said in a statement.

[Deccan Herald](#), 17 July 2017 | [The Hindu](#), 17 July 2017 | [India Today](#), 28 July 2017 | [The Hindu](#), 31 July 2017