

# Enviro Monitor

June 2016

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- In India, 1.6m premature deaths/year tied to air pollution
- Life expectancy drops 6 years in Delhi due to pollution
- Air pollution linked to increased mental illness in children
- Indoor air in Gurgaon toxic, says survey

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## Air quality

**In India, 1.6m premature deaths/year tied to air pollution.** An estimated 6.5 million premature deaths in the world are linked to air pollution every year with more than half of them being reported from China and India together. India alone

**Around 6.5 million deaths are attributed each year to poor air quality, making this the world's fourth-largest threat to human health, behind high blood pressure, dietary risks and smoking.**

contributes 1.59 million deaths to this dismal statistic. The global number will increase significantly, touching 7.5 million in 2040, unless the energy sector that emits majority of air pollutants takes greater action to curb emission, says the [World Energy Outlook Special Report 2016: Energy and Air Pollution](#), released by International Energy Agency recently. Referring to Delhi, the report says that the traditional use of biomass for cooking and two coal-fired power plants (Badarpur and Rajghat) are the main sources of PM2.5 emissions in Delhi.

**Life expectancy drops 6 years in Delhi due to pollution.** Delhi might be paying the steepest price for its air pollution with life expectancy dropping by 6.4 years while Uttar Pradesh and Maharashtra are likely to account for the highest number of premature deaths in India, a study by the Indian Institute of Tropical Meteorology (IITM) has revealed. Conducted by IITM scientists in collaboration with the National Centre for Atmospheric Research (NCAR), Colorado, the study is likely to further ignite concern over the need to improve air quality in the capital and urgently map its sources of pollution and their contribution to making Delhi an unhealthy city.

**Air pollution linked to increased mental illness in children.** A major new study has linked air pollution to increased mental illness in children, even at low levels of pollution. The research found that relatively small increases in air pollution were associated with a significant increase in treated psychiatric problems. It is the first study to establish the link but is consistent with a growing body of evidence that air pollution can affect mental and cognitive health and that children are particularly vulnerable to poor air quality. The research, published in the peer-reviewed journal [BMJ Open](#), examined the pollution exposure of more than 500,000 under-18s in Sweden and compared this with records of medicines prescribed for mental illnesses, ranging from sedatives to anti-psychotics.

**Indoor air in Gurgaon toxic, says survey.** The survey was conducted by Artemis Hospital under the Clean Air India Movement. As many as 628 people across offices and houses in Gurgaon were covered. While the offices belonged to the automobile, information technology and manufacturing sectors, the residential areas included Sushant Lok, Nirvana Country, Sector-4 and DLF Phase-III.

[The Times of India](#), 7 June 2016 | [The Guardian](#), 13 June 2016 | [The Hindu](#), 20 June 2016



**Water scarcity key issue for cultivation in Rajasthan.** The area under cultivation is gradually shrinking in Rajasthan as farmers are not getting adequate water for sowing due to the reluctance of the Punjab Government to release the legitimate share of water to Rajasthan, as highlighted by Gurbal Pal Singh Sandhu, farmers' representative from Sriganganagar (Rajasthan), at the third national convention of farmers under the banner of the Kisan Ekta.

**Water scarcity in 7 drought-hit states in June.** Of 11 states ravaged by drought in 2016, seven – Andhra Pradesh, Chhattisgarh, Gujarat, Jharkhand, Karnataka, Maharashtra and Telangana – had less than average water in their reservoirs in June.

Levels in dam reservoirs were no more than 10 per cent of capacity for four of the 11 states as June ended, according to the data with the Central Water Commission. This is despite the fact that eight of the 11 had average rainfall in June; rains were 30 per cent short of the average normal in Chhattisgarh, Jharkhand, Odisha and Maharashtra.

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**If the two water indicators – reservoir levels and rainfall (in June) – are taken together, Maharashtra, is the worst-affected state in India.**

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**Water resources ministry: No more dams on Ganga in Uttarakhand.** The water resources ministry has told the Supreme Court that “the three rivers namely, Alaknanda, Mandakini and Bhagirathi and Ganga river from Dev Prayag downwards till Ganga Sagar, should remain in their current condition without any further disruptions/interruptions or diversion”. The water resources ministry's stance against any future dams on the upper Ganga basin comes at a time that the power ministry is finalizing a fresh hydro power policy to give fillip to the sector, which has stagnated over the past decade due to concerns about its ecological impacts, land acquisition and questions of displacement.

**Gwalior's villagers migrate to neighbouring places.** Migration of people from villages in search for water continues to be a trend during the summers even after the launch of 'Gram Uday Se Bharat Uday Abhiyan' (Village Self Governance Campaign). The campaign aims to generate nation-wide efforts to increase social harmony across villages, strengthen Panchayati Raj, promote rural development, and foster farmers' progress. However, due to large scale water scarcity in villages falling under the Gwalior Gramin assembly constituency, 25 km from the district headquarters, villagers temporarily migrate to neighboring places like bordering Chambal to meet their drinking water needs and to support their livestock.

[Hindustan Times](#), 10 July 2016 | [The Tribune](#), 20 June 2016 | [Business Standard](#), 28 June 2016



**Plastic roads: India's radical plan to bury its garbage beneath the streets.**

Jambulingam Street, in Chennai, is one of India's first plastic road. The tar road in the bustling Nungambakkam area has weathered a major flood, several monsoons, recurring heat waves and a steady stream of cars, trucks and auto rickshaws without showing the usual signs of wear and tear. Built in 2002, it has not developed the mosaic of cracks, potholes or craters that typically make their appearance after it rains. Holding the road together is an unremarkable material: a cheap, polymer glue made from shredded waste plastic.

While polymer roads in the US are made with asphalt that comes pre-mixed with a polymer, plastic tar roads are a frugal invention, made with a discarded, low-grade polymer. A modified version of the road which adds road scrap to plastic-coated gravel was tested out in March this year on a highway connecting Chennai with Villupuram. It was the first time plastic road technology was used for a national highway. It is expected to reduce construction costs by 50%.

**Making India's waste streams sustainable.** MIT researchers are developing a decision-support tool to help cities in India sustainably manage the societal and environmental impacts of their waste. A team of researchers at MIT's Materials Systems Laboratory and Tata Center for Technology and Design is developing a [decision-support tool](#) to help Indian cities optimize the way they collect, transport, and treat household waste.

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The decision-support tool being created at MIT will use a variety of parameters to optimize a waste management system and recommend strategies tailored to a city's needs, factoring in all the dynamics of a city like Muzaffarnagar.

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**Capgemini sets up waste management centre in**

**Bengaluru.** French IT services firm Capgemini said it has set up a new Waste Management Centre in Whitefield, in partnership with an NGO named Saahas and the city civic body Bruhat Bengaluru Mahanagara Palike. This is the first such centre in Whitefield and the third in the city, the company said, adding, it is expected reach out to about 4000 households (approx. 20,000 people) in the area and also cater to about 10-15 bulk waste generators.

**Bengaluru: Koramangala gets Japanese tech to turn garbage into compost in 2 hours.** Koramangala's garbage will be turned into compost that can be used in the locality. Bruhat Bengaluru Mahanagara Palike and a private company have installed a machine at the Koramangala garbage segregation unit near Jyoti Nivas College. The machine can convert four tonnes of organic waste into compost in one-and-a-half hours. On 24 June, the Japanese bioengineering compost machine was fermenting 200 kg of organic waste. It works as an aerobic digester and has zero discharge.

**BHU to have own waste management system.** The Banaras Hindu University (BHU) is all set to have its own waste management system with the implementation of decentralised process of disposal of waste on the campus. In the pilot phase, the garden waste on the campus will be treated in compost beds through mulching technique.

**Ghazipur waste to lay foundations of highways.** The Road Ministry has allowed the National Highways Authority of India (NHAI) to use the Ghazipur municipal waste for earth-filling during construction of

highways. Approved by two Central agencies — Council for Scientific and Industrial Research and Central Road Research institute, the NHAI plans utilisation of this solid waste material for its highway construction programme on NH-24, Meerut Expressway.

**Tiruchirapalli Corporation develops solid waste management sites in four zones.** In Tamil Nadu, the Tiruchirapalli City Corporation has chosen 20 locations in different parts of the city to take up decentralised solid waste management at an estimate of Rs 9.92 crore. In the first phase, it will be implemented in four locations, each one in four zones of the corporation on a pilot basis at a cost of Rs 1.10 crore.

[MIT News](#), 24 June 2016 | [The Times of India](#), 26 June 2016 | [The Times of India](#), 27 June 2016 | [The Pioneer](#), 28 June 2016 | [The Hindu](#), 29 June 2016 | [The Guardian](#), 30 June 2016 | [Money Control](#), 1 July 2016



**ICCG climate think tank ranking 2015: The results.** The International Center for Climate Governance (ICCG) announces the publication of its 2015 “Climate Think Tank Ranking”, the authoritative and worldwide known assessment of the most cutting-edge institutions working in the field of climate change economics and policy.

Among the top climate think tanks in the standardized ranking are the Woods Hole Research Center and Union of Concerned Scientists (UCS) from the United States, the Mercator Research Institute on Global Commons and Climate Change in Berlin - which has been jointly founded by Stiftung Mercator and PIK just a few years ago and is directed by PIK's chief economist Ottmar Edenhofer. In the absolute ranking, the Helmholtz Centre for Environmental Research (UFZ) in Leipzig is among the top institutions, as well as The Nature Conservancy in the US, the International Institute for Applied Systems Analysis (IIASA) in Austria and TERI in India, among others.

**ZSI documenting climate change in five Himalayan states.** The Zoological Survey of India (ZSI) has launched long-term monitoring studies in five Himalayan states to document the effect of climate change on animal biodiversity. The emphasis would be on the distribution of indicator species, such as fish, which would help in understanding the current status. The project under the Ministry of Forest, Environment and Climate Change is budgeted at Rs 2 crore and uses latest technologies such as GIS mapping and bioinformatics.

A study conducted by State Centre on Climate Change, Himachal Pradesh, has found that in Himachal Pradesh a number of diseases occurred in the past ten years. Some diseases among these are worsened by climate change including influenza, cholera, babesiosis, verminous pneumonia, tuberculosis, rabies and bronchopneumonia etc. The report [Animal Diseases Influenced by Climate](#)

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**Alterations of temperature and precipitation regimes may result in a spread of disease and parasites into new regions or produce an increase in the incidence of disease, which, in turn, would reduce animal productivity and possibly increase animal mortality.**

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[Variation in Himachal Pradesh](#) states that predicted negative impact of climate change on Indian agriculture would also adversely affect livestock production by aggravating the feed and fodder shortage.

**A station in Himalayas to study climate change.** Glaciologists are studying Himalayan glaciers to understand the impacts of climate change in the polar climate and its connection to the Indian monsoon. A team of glaciologists from the National Centre for Antarctic and Ocean Research, Goa, led by Dr Paramanand Sharma, has already scaled over 4500 metre to set up a research station on the icy terrain. The station would have several automated research facilities to detect the changes in glaciers, and glacial melt-water.

**27 Karnal villages reap benefits of eco-friendly farming.** The concept of climate smart villages, which was adopted three years ago, has been successfully implemented in 27 villages of the district. By adopting eco-friendly farming amid the threat of global warming to agriculture, over 200 farmers of these villages have been receiving good yield. Scientists say farmers are reaping benefits in form of fertile soil, good water level and less emission of greenhouse gases. Many more farmers are coming forward to adopt climate smart agriculture practices. It is a Consultative Group of International Agriculture Research (CGIAR) programme on climate change, agriculture and food security initiated by International Maize and Wheat Improvement Centre.

[TTMap](#), 22 June 2016 | [The Hindu](#), 26 June 2016 | [The Tribune](#), 27 June 2016 | [Business Standard](#), 28 June 2016



**Cabinet clears new mining policy.** The Cabinet approved a [National Mineral Exploration Policy](#). This will allow auction of 100 prospective mineral blocks. The government now expects to attract the private sector in exploration, besides strengthening state-run Geological Survey of India, Mineral Exploration Corporation and other notified agencies. The policy says selection of private explorers would be through a transparent process of competitive bidding via e-auction. Mineral blocks for regional exploration will be identified by state

governments, for auctioning. Once the explorer gives data after exploration, the state government will auction the mining lease for that block. The mining lease owner will then pay a royalty to the state. Additionally, an amount equivalent to a certain percentage of this royalty would be paid to the private explorer by the mining lease owner. The revenue sharing could be in the form of a lump sum or an annuity to be paid through the period of mining lease, with transferable rights.

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#### UNEARTHING POSSIBILITIES

- Private explorer selection is proposed to be done through e-auction of the proposed area's exploration licence
  - To encourage mineral exploration, the mines ministry has already notified the National Mineral Exploration Trust
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**Environment ministry launches portal for mining of sand and minor minerals.** A web portal has been launched by the Environment Ministry for online submission and monitoring of environmental approvals for mining of sand and minor minerals. It is a district-level, web-based and role-based workflow application for online submission and monitoring of proposals, enabling the project proponents to track their applications online. The web-based application automates the entire tracking of proposals, which includes online submissions of a new proposal, editing/updating the details of proposals at each stage of the workflow. The system is based on web architecture.

**Ministry of Environment and Forests relaxes rules for small Rajasthan mines.** The Union Ministry of Environment and Forests has relaxed environment clearance norms for small mineral mines in Rajasthan, which were facing closure following a National Green Tribunal order of June 14. The relaxation will prevent closure of over 18,000 mines and quarries for want of environmental clearances (EC) and benefit thousands of small mine owners.

**Himachal: Mineral trust to develop mining-hit sites.** In order to provide relief to affected people in mining areas, the state government has decided to constitute a Himachal Pradesh district mineral foundation trust, which will ensure development and preservation of mining-affected areas. The trust would have perennial source of income which would be charged from the lessees of major minerals and minor minerals at different rates.

[The Pioneer](#), 29 June 2016 | [Business Standard](#), 30 June 2016 | [The Tribune](#), 30 June 2016 | [Indian Express](#), 4 July 2016