

Indian cities may face deadly heatwaves due to global warming. Scientists says

cities like Kolkata could face annual deadly heat waves like the one that claimed 2000 lives in 2015, even if global warming is halted at the

levels struck under the Paris deal. An analysis of 44 of the 101 most populous "megacities" showed that the number of cities experiencing heat stress doubled with 1.5 degrees Celsius of warming, researchers said. The trend would potentially

When temperatures reach those experienced on 'danger days' – when the 'feels like temperature exceeds $104^{\circ}F$ – it becomes difficult for the body to cool itself, the researchers at Climate Central explain. This can lead to dehydration, exhaustion, dizziness, and other problems in the body – and often, even death.

expose more than 350 million additional people to heat stress by 2050, if population continues to grow as expected, researchers said. The <u>study</u> was published online March 27 in the *Proceedings of the National Academy of Sciences*.

India's temperature rose by 0.60 degree over last 110 years. India's temperature has risen by nearly 0.60 degree celsius over the last 110 years and extreme events like heat waves have increased in the last 30 years, the Rajya Sabha was informed. IMD studies have highlighted that extreme events like heat waves have risen in the last 30 years.

Climate change key suspect in the case of India's vanishing groundwater. A <u>study</u> by the Indian Institute of Technology (IIT) Gandhinagar in *Nature Geoscience*, shows that variable monsoon precipitation, linked to climate change, is likely the key reason for declining levels of groundwater. India's rainfall has decreased since the 1950s. When rainfall decreases, so does the water table. By observing climate patterns and well depths, researchers found that groundwater storage dropped in northern India about two centimeters per year between 2002 and 2013.

Frogs heading uphill to escape climate change. Giving more credence to the rising impact of climate change in the biodiversity hotspot of Wayanad, researchers have found that endangered frog species are moving up the mountains to cope with rising temperatures and drier conditions that have set in in their relatively low-altitude mountain habitats. Experts said endangered bush frog species *Raorchestes charius* and *Raorchestes tinniens*, have gradually moved uphill seeking cool and moist habitats as part of their survival strategy.

IIT-Kharagpur to start excellence centre to study climate change impact. The Indian Institute of Technology, Kharagpur, is creating a new centre of excellence that will research on impacts of climate change in the region. Supported by the department of science and technology, the *Centre of Excellence in Climate Change Studies* will begin functioning from April 2017 and take in 30-35 PhD research scholars to work on various projects that look into the impact of climate change on land, rivers, ocean and atmosphere.

<u>The Times of India</u>, 8 March 2017 | <u>The Times of India</u>, 13 March 2017 | <u>Eco Business</u>, 20 March 2017 | <u>The Times of India</u>, 27 March 2017 | <u>Mint</u>, 28 March 2017 | <u>Daily Mail</u>, 28 March 2017

Climate change



Thermal plants must meet emission norms. The environment ministry has made it clear that it will neither dilute the emission norms for thermal power plants, as notified on 7 December 2015, to minimise air pollution, nor relax deadline for implementation of the stricter standards. The revised norms will come into force from 6 December 2017. According to the ministry, 142 out of 162 standalone power plants have so far installed continuous emission/effluent monitoring systems. Among these, 102 have also initiated

online transmission of emission/effluent data to Central Pollution Control Board (CPCB) whereas six plants have installed flue gas de-sulphurisation (FGD) system for control of SO2 emissions.

SC bans sale of BS-III vehicles from April 1. Supreme Court has banned the sale and registration of all Bharat Stage-III (BS-III) vehicles from April 1. The health of the citizen is more important than the commercial interests of the automobile industry, the apex court observed while banning sale and registration of BS-III vehicles from April 1. The industry previously believed that only the manufacturing of BS-III-compliant vehicles would stop from this date. It argued that such a ruling would severely hit the finances of carmakers, which were sitting on large inventories of BS-III-compliant vehicles.

Delhi, Faridabad among 5 cities with worst air pollution. Delhi and Faridabad were among the top five cities with the worst air pollution in the country between 2015 and 2016, the Rajya Sabha was informed. Cities can be ranked on the basis of different criteria pollutants with different results. Five cities where higher values of air quality index have been observed for the period between November 2015 to October 2016 are Delhi, Faridabad, Varanasi, Lucknow and Jaipur," Environment Minister Mr Anil Madhav Dave said in a written reply. Replying to another question, Dave said out of 56 cities monitored for PM2.5 (fine particulate matter) by Central Pollution Control Board, the data for 2015 indicates that PM2.5 levels have exceeded permissible limits in Delhi, Bangalore, Bhopal, Gwalior, Singrauli, Angul, Balasore, Rourkela, Sambalpur, Talcher, Kalinga Nagar, Tuticorin, Barrackpore, Durgapur, Howrah and Kolkata.

EPCA drafts mega plan to fight Delhi's air pollution. The

Delhi-NCR belt, a pollution hotspot, needs a drastic reduction in level of pollutants, by up to 76 per cent in some areas, and several radical interventions for its air to meet safe standards. The observation and the proposals are part of a new plan drafted by the Environment Pollution (Prevention and Control) Authority which have been submitted to the Supreme Court recently. The percentage of reduction in PM10 required in Delhi,

The roadmap lays a major thrust on the need to augment the region's public transport system by way of increasing number of buses to 10,000 and frequency of metro among others.

Faridabad, Ghaziabad, Noida and Meerut are 74, 64, 76, 56 and 60 per cent respectively while PM 2.5 and nitrogen dioxide levels have to come down by 70 and 37.5 per cent in the national capital, the plan says.

<u>Business Standard</u>, 20 March 2017 | <u>Business Standard</u>, 27 March 2017 | <u>The Hindu Business Line</u>, 29 March 2017 | <u>Business Standard</u>, 30 March 2017 | <u>The Times of India</u>, 31 March 2017



Water level of 91 major reservoirs of the country goes down by two per cent. The water storage available in 91 major reservoirs of the country for the week ending on 30 March 2017 was 52.632 BCM, which is 33% of total storage capacity of these reservoirs. This percentage was at 35 for the week ending on 23 March 2017. The level of 30 March 2017 was 133% of the storage of corresponding period of last year and 102% of storage of average of last ten years. The total storage capacity of these 91 reservoirs is 157.799 BCM which is

about 62% of the total storage capacity of 253.388 BCM which is estimated to have been created in the country. 37 reservoirs out of these 91 have hydropower benefit with installed capacity of over 60 MW.

States to be ranked on their water management. The Niti Aayog will soon start a process to sensitise states towards preparing a Water Management Index which will ultimately lead the Centre's think-tank to rank them on the basis of their efforts in efficient management of water resources. The states' performance will be judged on the basis of 28 key indicators covering water use efficiency, irrigation status, groundwater recharge, availability of drinking water for both rural and urban areas, watershed development and other sustainable practices in water-related sectors.

Government introduces bill on inter-state river water row in Lok Sabha. Inter-State River Water Disputes

(Amendment) Bill, 2017 proposes a single standing tribunal (with multiple benches) instead of multiple tribunals that exist at present. The total time period for adjudication of dispute has been fixed at maximum of four-and-a-half years. The decision of the Tribunal shall be final and binding with no requirement of publication in the official Gazette. The bill also proposes to introduce mechanisms to resolve disputes amicably by negotiations through a Dispute Resolution Committee to be established by the central government consisting of experts, before a dispute is referred to the tribunal.

The bill provides for a transparent data collection system at the national level for each river basin and for the appointment of assessors to provide technical support to the tribunal.

Karnataka among 7 states selected for groundwater project. Karnataka is among seven states selected by the Union Water Resources Ministry for the World Bank-aided National Groundwater Management Improvement Scheme (NGMIS) on a pilot basis. The ministry selected Karnataka, Gujarat, Haryana, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh based on an alarming drop in the groundwater table due to over exploitation. NGMIS envisages sustainable groundwater management with people's participation.

Over-exploitation pushed down water table in 143 taluks in Karnataka. According to the state government, groundwater levels in 143 of the total 176 taluks in the state have depleted during the last 10 years due to over-exploitation. Static groundwater levels were measured from 1774 borewells maintained by the Groundwater Directorate across the state. No water is drawn from these borewells and they are maintained only for study purpose. A comparison of water levels between 2007 and 2016 revealed depletion in groundwater levels in 143 taluks. The groundwater depletion in Kolar taluk, Kolar district, is the worst with a fall by 54.81 metres during the last 10 years.

<u>Mint</u>, 15 March 2017 | <u>The Times of India</u>, 19 March 2017 | <u>Deccan Herald</u>, 23 March 2017 | <u>Deccan</u> <u>Herald</u>, 23 March 2017 | <u>Press Information Bureau</u>, 31 March 2017



Ganga, Yamuna termed 'living persons'. In a first in the country, the Uttarakhand High Court has declared that the rivers Ganga and Yamuna were "living persons." "... to protect the recognition and the faith of society, rivers Ganga and Yamuna are required to be declared as legal persons [or] living persons," stated the court order. The court ordered that the Director of the Namami Gange programme, the Uttarakhand Chief Secretary, and the Advocate-General of Uttarakhand would serve as "parents" for the rivers and

would be the human faces to "protect, conserve and preserve" the rivers and their tributaries.

1.04 crore hit by arsenic contamination in Bengal. There are 83 blocks in eight districts in West Bengal— Bardhaman, Malda, Hooghly, Howrah, Murshidabad, Nadia, North and South 24 Paraganas — where groundwater is affected by arsenic contamination. According the report tabled in the Lok Sabha by Union Minister for Drinking Water and Sanitation, Bengal topped the list with more than 1.04 crore arsenicaffected persons as on 4 March 2017. Bihar comes second with 16.88 lakh persons, with Assam in third spot with 14.48 lakh victims. The total number of arsenic-affected people in the country is about 1.48 crore. <u>The Hindu, 19 March 2017 | The Hindu, 21 March 2017</u>