

Enviro Monitor

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Climate change

Most river basins in India not climate resilient. A recent [study](#) by Indian researchers has shown that only 6 out of 22 river basins in the country have the potential to cope with the threat of climate change, particularly droughts. Nearly two-thirds of the India's terrestrial ecosystems is not resilient to drought. The central India has been found to be the most vulnerable to climate change. Parts of northwestern, northeastern and southern India appear to be resilient to cope with droughts while the rest of the country is non-resilient, says the study done by researchers at the Indian Institute of Technology, Guwahati. The study has appeared in journal *Global Change Biology*.

Bihar allocates Rs 68,500 crore for climate change sensitive departments. The Bihar state government has said that the money spent would protect its people from calamities caused due to the climate change. The State Action Plan Financial Framework for Climate Change, prepared by the ADRI and ACT, highlights the strong need for the technical capacity building to improve understanding of climate change and the environment, both in technical institutions and in the key line departments. This should include monitoring the latest evidence on climate change projections for Bihar and the potential impact of climate change on the economy, society and environment of the state.

Central India stares at rainfall deficit, scientists point to climate change. As the southwest monsoon gets ready to begin its retreat, the central India region — comprising two of the country's largest states, Madhya Pradesh and Uttar Pradesh — appears likely to remain rainfall-deficient this season. Meteorologists are pointing to climate change for this season's erratic rainfall. There were several instances of very heavy rainfall over small areas with relatively prolonged dry periods in between. As a result, there was severe flooding over Assam in the Northeast, Bihar and West Bengal in the East, and Gujarat and Rajasthan in the West during July and August.

Indian Ocean sea levels rising twice as much as other oceans. Sea levels in the Indian Ocean are rising twice the global average due to wind and heat, a top scientist has said. Sea levels in the north Indian Ocean was rising about 0.3mm a year for decades, and from 2004 gained about 6mm annually, Dr M Ravichandran, director of National Centre for Antarctic and Ocean Research said. In other oceans, the

rise in sea levels is due to melting of glaciers, while in the Indian Ocean it is due to thermal expansion of water.

Climate change looms over Himalayas. Pheasants and finches — two of the flagship Himalayan species seem to be affected by climate change, states the preliminary findings of survey by Bombay Natural History Society (BNHS). BNHS has launched a programme focusing on pheasants and finches (species of birds) to study climate change in Himalayas. The research team has undertaken surveys to understand distribution and status of pheasants in four districts of Sikkim and two of West Bengal.

Himalayan glaciers at low altitude melting at faster rate. The low-altitude Himalayan glaciers are losing water at a faster pace than the ones in higher reaches due to rising temperatures creating water risk in these regions, a new study has found. Himalayan glaciers are a huge reservoir of water that sustain lives of millions of people in India and many rivers including Ganga, Brahmaputra and Indus originate from the glacial ice. While most glaciers are melting only a few have witnessed advancement in recent decades. A [study](#) of 146 glaciers spread over 660 sq km in Chandra basin in the western Himalayas has for the first time estimated the loss of volume. This helps in understanding the behaviour of glaciers in the wake of climate change as the overall spread of the glaciers may not fall but water content may go down. The study was published in the international journal *Annals of Glaciology*.

Asia's glaciers to shrink by a third by 2100, threatening water supply of millions. Asia's mountain glaciers will lose at least a third of their mass through global warming by the century's end, with dire consequences for millions of people who rely on them for fresh water, researchers have said. This is a best-case scenario, based on the assumption that the world manages to limit average global warming to 1.5°C (2.7F) over pre-industrial levels, according to a [study](#) in the journal *Nature*. The Asian high mountains, the new study said, were already warming more rapidly than the global average. A global temperature rise of 1.5°C would mean an average increase in the region of about 2.1°C, with differences between mountain ranges – all of which will warm by more than 1.5°C. The Hindu Kush mountain range would warm by about 2.3°C and the eastern Himalayas by 1.9°C, the study forecast.

[Hindustan Times](#), 4 September 2017 | [The Times of India](#), 6 September 2017 | [The Guardian](#), 14 September 2017 | [Indian Express](#), 14 September 2017 | | [The Hindu Business Line](#), 25 September 2017 | [Business Standard](#), 26 September 2017 | [The Times of India](#), 27 September 2017



Bengaluru: 'Garbage Marshals' to monitor segregation. To counter garbage contractors' mafia in the IT city and ensure proper segregation of dry and wet waste, the Bruhat Bengaluru Mahanagara Palike will introduce 'garbage marshals' concept involving local citizens and Resident Welfare Associations. The concept, as a pilot project, will be tested in a couple of wards from October. Depending on the success of the pilot project, the module will be replicated in all the 198 wards of the city.

Delhi: North corporation makes waste segregation a must. All organisations, commercial complexes, hotels, malls, shops and residential societies located in north Delhi have been asked to dump waste only after segregation and make compost of the green waste. These bulk waste generating establishments generate more waste than many households together and usually these establishments don't engage in segregation of waste. The North Delhi Municipal Corporation issued the order for all such establishments spread on 5000 or above square metre area or generating 100kg waste every day.

Rs 300-crore plan to improve solid waste management in Delhi. To improve solid waste management in Delhi, the Union ministry of housing and urban affairs has announced a Rs 300-crore action plan. The initiative would be aided by the ministry through the 'urban development fund' operated by the Delhi Development Authority. Under the plan, automated machinery, equipment and other systems will be procured for better collection, transport, storage and decentralised treatment of garbage. Besides, steps would be taken for better maintenance of sewers and drains.

The initiative will increase the capacity to treat 670 tonnes of bio-degradable waste, besides preventing release of foul gases, smell and proliferation of germs, pathogens, pests, etc., from garbage sites.

Ghazipur landfill: Delhi LG bans garbage dumping, site to be cleared within 2 years. Garbage dumping in Ghazipur has been banned with immediate effect and the landfill site is likely to be cleared within two years, according to the Lt Governor's office. The East Delhi Municipal Corporation (EDMC) that manages the landfill site will send collected garbage for disposal to some alternative site with immediate effect. Around 2500 MT of garbage lifted from East Delhi is dumped each day in the Ghazipur landfill, the oldest of its kind in the national capital. A portion of the garbage dump had collapsed in the landfill site on 1 September, killing two persons.

The National Green Tribunal has directed the Delhi government and the East Delhi Municipal Corporation (EDMC) to submit a report on segregation, compaction and disposal of waste at the Ghazipur landfill site.

[Mint](#), 2 September 2017 | [Hindustan Times](#), 15 September 2017 | [The Times of India](#), 20 September 2017 | [Hindustan Times](#), 24 September 2017 | [Bangalore Mirror](#), 28 September 2017



State-wise survey in Maharashtra: Groundwater in Pune district 'second-most contaminated'.

According to a recent analysis of water quality, conducted by the Groundwater Survey and Development Agency, the quality of drinking water obtained from the natural groundwater reserves in Pune district is among the poorest in the state. With a total of 22

villages, Pune district is second in the state, after Chandrapur, to have the highest number of villages whose groundwater quality was not "readily fit for human consumption", revealed the report. It further named Daund, Ambegaon and Indapur among the "most affected areas" in the district.

A laboratory to test the quality of drinking water will soon be set up in Pune. The project has been funded by the World Bank and is part of a capacity-building programme initiated by the Maharashtra government.

District	No. of affected villages
Chandrapur	33
Pune	22
Nagpur	19
Nanded	10
Aurangabad	7
Jalgaon, Buldhana	6
Ahmednagar	5
Amravati, Satara	2
Total	112

Maharashtra to enforce stringent laws to tackle river pollution. Adopting a multi-pronged strategy to tackle river pollution in Maharashtra, the state government, while pledging to make higher budgetary allocations, has decided to preserve and rejuvenate the state's rivers by enforcing stringent laws to

prevent dumping of untreated solid waste and undertaking a plantation drive. Guidelines are being reworked on putting a cap on construction activities along river fronts and following stringent norms. An integrated policy to revive rivers and make them pollution-free is underway. Desilting of rivers that have shrunk has also been included in the plans.

Clean Ganga mission: Blueprint in works to implement Internet of things devices to check pollution.

Institute of Engineering and Technology has created a blueprint to implement internet of things devices which will help check and tabulate data on the pollution levels of Ganga river. The new IoT devices across Varanasi in Uttar Pradesh will check pollution levels as the IoT panel looks forward to closely working with technology companies, universities and the government. The data collected could be used by the Indian government to implement policies of cleaning up the river.

[Indian Express](#), 17 September 2017 | [Indian Express](#), 21 September 2017 | [MoneyControl](#), 26 September 2017 | [Indian Express](#), 27 September 2017



Centre decentralises management of wetlands. Seeking to protect over 2 lakh wetlands across the country, the Centre has notified new [Wetland \(Conservation and Management\) Rules 2017](#) to identify and manage these ecologically fragile areas which play an important role in flood control, groundwater recharge, preserving plant varieties, supporting migratory birds and protecting coastlines. The rules decentralise wetlands management by giving states powers to not only identify

and notify wetlands within their jurisdictions but also keep a watch on prohibited activities. It also indirectly widens the ambit of permitted activities by inserting the 'wise use' principle, giving powers to state-level wetland authorities to decide what can be allowed in larger interest.

The rules prohibit activities like conversion of wetland for non-wetland uses, setting up of industries, waste dumping, discharge of untreated wastes and effluents.

Rs 5.5 lakh-crore river interlinking to take off by December. The government's Rs 5.5-lakh-crore plan to undertake 30 river interlinking projects, which is likely to end excessive floods and drought in the country, will take off by the end of this year. By December, the government will start work on Ken-Betwa, Damanganga-Pinjal and Par-Tapi-Narmada projects, and two more – the North Koel reservoir project in Jharkhand and Bihar and Pancheshwar project in Uttarakhand. The total cost of these projects is expected to be Rs 50,000 crore. The national river linking project will ease the water shortages in western and southern India while mitigating the impacts of recurrent floods in eastern India. The project will transfer 174 billion cubic meters of water through a canal network of about 14,900 km.

Panel to study proposal to draw water from Western Ghats rivers to Bengaluru. Bangalore Water Supply and Sewerage Board (BWSSB) is assessing the feasibility of getting water from Western Ghats rivers to quench the city's thirst. BWSSB has set up a special committee to assess proposals to get water from Western Ghat rivers — Sharavathi, Yettinahole and Netravathi. The city already gets 1375 mld from Cauvery. BWSSB distributes water across 575 sq km of the city at an average of 120 lpcd (litres per day per capita).

NDMC taps Israeli technology to trap air and turn it into water. New Delhi Municipal Council (NDMC), in collaboration with Israel's Water-Gen, has installed in Delhi a machine that makes water from ordinary air. Water-Gen, which was started by a former Israeli Army combat reconnaissance company commander named Arye Kohavi, has joint ventures with India, the US, and European, African and Asian countries to set up preventive measures against contaminated water sources.

[The Economic Times](#), 7 September 2017 | [The Times of India](#), 16 September 2017 | [Deccan Herald](#), 18 September 2017 | [The Times of India](#), 28 September 2017 | [Mint](#), 28 September 2017



Government to hold contest to assess impact of smart city projects. To measure the "quality" and "impact" of various ongoing smart city projects, the Centre will hold a contest carrying total prize money of Rs 50 lakh. The housing and urban affairs ministry has circulated a concept note and guidelines on 'India Smart Cities Awards Contest, 2017' to all States and Union Territories. Under the 'Project Awards' category, excellence will be awarded in various categories such as 'Improving Governance', 'Social

Aspects', 'Culture and Economy', 'Environment impact', 'Transportation and Mobility' and 'Water and Sanitation'.

PM steps in to boost smart cities, urges states for early rollout. The Centre has asked states to focus on impactful and public-private-partnership based smart city projects, which would show results over the next one year and have a review mechanism in place. Ministry of Housing And Urban Affairs, the nodal ministry for Smart Cities Mission has identified 261 impactful ventures worth Rs 31,000 crore and PPP projects worth Rs 32,000 crore for the states to work on.

Some of the major PPP smart city projects	
Bhubaneswar	Affordable housing ▪ Rs 840 crore
Raipur	Urban Plaza at Ganj Mandi ▪ Rs 983 crore
Bilaspur	Markets development ▪ Rs 1241 crore
Amritsar	Urban space development ▪ Rs 1028 crore
Coimbatore	Water supply ▪ Rs 557 crore

Smart cities to have digital "brain centres". Upcoming Smart cities will go to a new level of monitoring and delivery of civic services through Digitally Integrated Central Command and Control Centres, Union Housing and Urban Affairs Secretary Mr Durga Shanker Mishra has said. These centres would serve as the 'brain centres' of the Smart Cities for ensuring effective coordination in the functioning of various agencies of urban local bodies, thereby resulting in improved services delivery to the citizens. Such centres were under implementation in Pune, Nagpur, Surat, Ahmedabad, Vadodara, Jaipur, Raipur, Naya Raipur, Bhubaneshwar, Visakhapatnam and Kakinada. The centres have already become partly operational in Pune and Nagpur while bidding processes for 23 other cities has been completed for setting up such centres.

[The Economic Times](#), 10 September 2017 | [First Post](#), 22 September 2017 | [The Economic Times](#), 29 September 2017



Delhi: Fields being set afire, smoke gradually rising. Paddy stubble burning, which triggers episodes of smog across Delhi-NCR during winter, is slowly picking up across parts of Haryana and Punjab, sparking concern among States in the region. The Pollution Control Board of Haryana has confirmed two reports of stubble burning while NASA's web fire mapper is showing a few red dots scattered across the National Capital Region, including in Punjab.

Karnataka: Five centres to monitor air quality. Taking into account the increase in PM 2.5 and PM 10 level pollutants, the Karnataka State Pollution Control Board has installed five continuous ambient air quality monitoring stations (CAAQMS) in different parts of the city. The new monitoring stations have been installed at Kavika on Mysore Road, Nimhans, Hebbal, Silk Board and Jayanagar.

Indians could live longer if air quality improves: Study. The [Air Quality Life Index](#), developed by the Energy Policy Institute at the University of Chicago, when considered at the national level, says Indians could live four years longer in average if its air quality meets WHO standards. The study takes air borne particulate matter pollution, PM 2.5, into account and extrapolates it to see what impact any reduction in its volume would have on the life span of people. Accordingly, the Index says that if PM 2.5 quantity in Delhi's air meets the WHO annual standard of 10 micrograms per cubic metre (ug/m3), people can live up to nine years longer and six years longer if it meets the national standard of 40 ug/m3.

In Delhi, people could live nine years longer if it met WHO standards. Residents of Kolkata and Mumbai could live roughly 3.5 years longer if the accepted particulate matter levels conformed to WHO standards.

[The Hindu](#), 12 September 2017 | [The Hindu](#), 28 September 2017 | [Deccan Chronicle](#), 2 October 2017