Enviro News Monitor
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- Yamuna revival: NGT pulls up government

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- 500 brownfield projects to take off
- SEBI approves norms for issuance and listing of municipal bonds
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- CII inks pacts with Hitachi, Siemens for smart city initiative

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River Pollution

Study sounds SOS on river pollution. A recent report of by Central Pollution Control Board (CPCB) has noted that the number of polluted river stretches have increased in the past over five years, indicating how several rivers are victims of constant neglect. A total of 532 townscities fall along the polluted stretches of different rivers across the country. In comparison, the Ganga river basin states of Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal have 118 such stretches.

Table. State-wise polluted river stretches

States	2009	2015
Maharashtra	28	49
Gujarat	19	20
Uttar Pradesh	12	13
Karnataka	11	15
Madhya Pradesh	9	21

Source. The Times of India, 26 March 2015

Number of `polluted river stretches' increased from 150 in 2009 to 302 in 2015.

37,000 million litres of sewage flows into rivers daily. The water pollution scenario in India can be mapped by the findings of the CPCB, which in its recent report noted that nearly 37,000 million liters per day (MLD) of untreated' sewage water flows into rivers across the country. The report, submitted to the environment ministry recently, said that though the sewage treatment capacity in the country was augmented over the years, the wide gap between sewage generation (57,000 MLD) and treatment capacity (20,358 MLD) kept polluting water resources - be it river water or groundwater. While municipal waste water is the prime cause of increasing water pollution, flow of untreated industrial waste water into rivers is not far behind. As many as 302 river stretches on 275 rivers across the country have got polluted due to discharge of both municipal and industrial waste water over the years.

More than two-third of the sewage generated in 118 towns, located along Ganga, get discharged into the river untreated. The CPCB report pointed out that these towns collectively generate over 3,636 MLD of sewage as against the treatment capacity of approximately 1027 MLD of the existing 55 sewage treatment plants in these towns/cities spread over five states.

Yamuna revival: NGT pulls up government. The National Green Tribunal (NGT) has warned the Delhi government that it would use all its powers as a civil court to penalize officials and departments not implementing its orders on reviving Yamuna. A bench headed by NGT chairperson Justice Swatanter Kumar said that it will be compelled to seize bank accounts of officials and even cause authorities to suffer civil imprisonment if the court's orders on various aspects of the river including ecological flow, demarcating floodplains, cleaning of storm water drains and fining those who dump waste on floodplains or throw religious offerings into the river go unimplemented.

The Times of India, 23 March 2015 | The Economic Times, 23 March 2015 | The Times of India, 26 March 2015 | The Times of India, 28 March 2015

Smart Cities

A competition to choose 100 smart cities. The government is going to choose 100 urban centres for its 'smart city' project through a competition. State governments will reportedly participate in a 'city challenge'. That means states will compete among themselves to have their cities among the 100 to be developed as smart cities. The smart city project, announced in July last year, is being coordinated by the Union urban development ministry. After states have nominated their cities, a Central expert panel will make the final selection on the basis of certain criteria, such as the cities' size, population, infrastructure level and upgrade potential.

500 brownfield projects to take off. In a couple of months, about 500 cities with a population of over 1 lakh would be upgraded by redeveloping them. Urban development minister M Venkaiah Naidu said that for smart cities to be successful, it was important to empower municipal bodies, adding that allowing them to issue municipal bonds was a step in this direction. The minister also released a report — *How smart are our cities*? — put together by the Express Group and PricewaterhouseCoopers (PwC) conceptualizing the models for future smart cities in the country.

SEBI approves norms for issuance and listing of municipal bonds. The Securities and Exchange Board of India (SEBI) has cleared the framework to set up international financial services centres (IFSC), approved rules for municipalities to issue and list bonds and made it easier for banks to take control of listed companies in financial distress by converting loans into equity. The board of the market regulator also approved a roadmap for the new fiscal year, when it is expected to unveil rules to help startups raise funds through crowdfunding and institutional trading platform, as well as measures such as e-IPO and e-KYC to make it easier to invest in the market. It has also decided to tighten disclosure rules.

Maharashtra Government mulls theme or subject based smart cities. The government in Maharashtra has internally launched a study to assess development of theme- or subject-based smart cities across the state. As Cambridge and Oxford cities are widely known as the home of University of Cambridge and University of Oxford in the United Kingdom, the state government proposes to develop Pune as smart city for education and information technology. More than 3500 acres of land is available in Pune where the government plans to develop necessary infrastructure and promote investments in education and IT sectors for the proposed global smart city.

CII inks pacts with Hitachi, Siemens for smart city initiative. In the first step towards implementation of the government's plan to build 100 smart cities, the Confederation of Indian Industry (CII) has inked pacts with global technology firms Siemens and Hitachi. Under the agreement, the industry led consortia will spearhead the conceptualization and implementation of pilot projects in smart cities. CII has set up a 'National Mission on Smart Cities', a consortium comprising industry leaders and experts to provide policy advocacy and thought leadership to government and other stakeholders. The memorandums of understanding are part of the implementation strategy to take the initiative on smart cities forward.

The Economic Times, 18 March 2015 | Business Standard, 23 March 2015 | The Economic Times, 23 March 2015 | The Financial Express, 27 March 2015 | Business Standard, 30 March 2015

Mining

MoEF order lifts suspension on environment clearances. Paving the way for resumption of iron ore mining in Goa, the Union Ministry of Environment and Forest (MoEF) has issued the much-awaited order and lifted the suspension on the environment clearances (ECs) of 72 mining leases, with a condition that any violation in the near future would result in direct cancellation of ECs, whose validity is valid till the expiry of mining lease period. Of the total 137 mining leases, whose ECs were kept in abeyance on 14 September 2012, the environment clearances of 18 leases have been cancelled since they are in protected areas such as wildlife sanctuaries and national park. Of these 13 leases belong to Kantilal and Co Pvt Ltd. Almost all the mines are located in the Netravali Wildlife sanctuary, while one is located in the Mhadei sanctuary.

MAIN HIGHLIGHTS

- ECs of 137 mining leases kept in abeyance by MoEF on 14 September 2012
- MoEF lifts suspension on ECs of 72 mining leases
- ECs of 18 leases cancelled for existing fully or partially in protected areas
- 23 mining leases located in one km buffer zone, to be phased out in 10 years. Lifting of ECs suspension to be considered only if SC modifies its 2006 order
- 22 mining leases fall in forest area and are without forest clearance. Decision on them only after obtaining ECs
- ECs of two leases withdrawn for producing false information in the EIA
- Validity of EC stands until expiry of mining leases
- ECs to be cancelled if lessee found involved in violations

Ban lifted, but Goa mining will not start till October. The environment ministry may have lifted the ban on iron ore mining in Goa, but the coastal state's economic "lifeline" probably won't be functional till October, chief minister Mr Laxmikant Parsekar said. Mr Parsekar emphasized that schemes for the welfare of mining-affected people along with the rescheduling of loans, among others, will continue.

Herald, 23 March 2015 | Goa News, 24 March 2015

Climate Change

India develops new climate change model. India has a new and improved climate prediction model, which will help make more accurate long-range forecasts of the erratic monsoon and allow scientists to better study the impact of climate change on the monsoon. The model, developed by researchers at the Pune-based Indian Institute of Tropical Meteorology (IITM), will allow India next year to contribute for the first time to the annual report of the Intergovernmental Panel on Climate Change.

Sunderbans sea level to rise 3-8 mm per year. The water level in the Sunderbans, the world's largest mangrove forest, is rising at an "alarming" level, endangering the habitation, a World Bank report has suggested. The report stated that the sea level could witness an estimated 3 to 8 mm rise per year and mainly attributed it to land subsidence caused by various natural and anthropogenic processes. The report, titled *Building Resilience for Sustainable Development of the Sunderbans - Strategy Report* said that parts of the coast in the south were rising because of uplift which illustrates that impacts were not homogeneous and differ according to varying geological processes.

Urban homes emit more greenhouse gases than industry. The industrial sector has been taking the flak for emitting high levels of hazardous gases over the years but it might ultimately be our homes that are responsible for the highest emission of greenhouse gases. The results, based on the 2009-2010 data, were published recently in the journal Renewable and Sustainable Energy Reviews by a team led by Prof. T V Ramachandra of the Energy &Wetlands Research Group, Centre for Ecological Sciences, Indian Institute of Science (IISc), Bengaluru. When the cities were considered individually, the domestic sector was the highest contributor in Chennai, Ahmedabad, Kolkata and Mumbai, and second highest contributor in Delhi, Hyderabad and Bengaluru, where transport sector emissions dominated. The study revealed that the major sources of energy consumption in the domestic sector were electricity for lighting and household appliances and fuel for cooking. The fuels considered during the study were liquefied petroleum gas, piped natural gas and kerosene.

Bengaluru's vehicles highest emitters of greenhouse gases. The city has earned a dubious distinction as far as pollution parameters are concerned. It has become the highest emitter of greenhouse gases in the transport sector — 44% of Bengaluru's total emissions come from its vehicles. For Delhi, the figure stands at 32%, says an IISc study. A footprint is an aggregation of gases which cause the greenhouse effect in a particular area. Scientists used the data to link GHG emissions with population and economic growth, since the consumption of fuel is closely connected to both.

The study provides the 'Greenhouse Gases (GHG) footprint' of seven major cities — Delhi, Chennai, Greater Bengaluru, Greater Mumbai, Hyderabad, Ahmedabad and Kolkata.

Chennai highest per capita emitter of greenhouse gases. At nearly 39 million tonnes of carbon dioxide equivalent, Delhi has the highest greenhouse gases footprint in the country. Greater Mumbai and Chennai follow Delhi with 23 million tonnes and 22 million tonnes respectively. Ahmedabad accounts for

the least (9 million tonnes) GHS footprint among the seven Indian cities studied by a team of researchers at IISc, Despite the total GHS footprint being 17 million tonnes lesser than Delhi, Chennai has the highest per capita emission of carbon dioxide equivalent — 4.79 tonnes. Kolkata follows Chennai with 3.29 tonnes of carbon dioxide equivalent. Chennai also emits the highest carbon dioxide equivalent per GDP — 2.55 tonnes carbon dioxide

Ganga basin under threat. Climate change will have a considerable impact on the dynamics of the river Ganga, an IISc study has predicted. This will directly affect a major portion of northern India, which depends on the river for meeting domestic, agricultural, and industrial water needs. The study carried out by the researchers from the Department of Civil Engineering, IISc, Bengaluru, focused on how the streamflow in the Ganga basin would change under changing land use pattern and climate. Though both the factors affect streamflow, the effect of climate change was much more pronounced than that of land use change. Streamflow is a measure of how much water flows in a river or a stream, and at what rate. The researchers ran a well-calibrated hydrological model to predict how streamflow would change under changing land use and climate. They found that, although the streamflow was sensitive to changes in land use (crop land, urban area, forest cover) it was mostly affected by climatic changes.

The Times of India, 18 March 2014 | The Hindu, 19 March 2015 | The Times of India, 23 March 2015 | Bangalore Mirror, 30 March 2015 | The Times of India, 31 March 2015 | Mint, 31 March 2015

News briefs

Natural Resources

Rajasthan: Lakes bill to prevent encroachments near water bodies, passed with voice vote

The Rajasthan state assembly has passed the Rajasthan Lakes (protection and development) Authority Bill, 2015. The bill was aimed at preventing encroachments in the catchment areas of rivers, lakes and other water bodies and restoring them to their 'original shapes'. The bill replaces the ordinance the state government introduced in January this year.

The Times of India, 22 March 2015

Pollution

High arsenic levels found in 12 Punjab, Haryana districts

Residents of 12 districts of Punjab and Haryana are consuming poisonous water as the groundwater there has been detected with arsenic levels beyond the permissible limit, the Union Ministry of Water Resources has said. The ministry has directed the two states to prepare an action plan to contain the contamination. These directions were given on the basis of sample reports of the Central Ground Water Board (CGWB) that found habitations of six districts each in the two states affected with arsenic in

groundwater beyond the permissible limit of 0.05 milligram per litre. In 2014, the CGWB collected 50 groundwater samples from Punjab, of which arsenic contamination more than 0.05 MG/L was found in six districts. These include Gandiwind (Amritsar district), Patti (Tarn Taran), Jhunir (Mansa), Dhilwan (Kapurthala), Ropar and Fazilka. In fact, 30 more blocks in 13 districts of Punjab have arsenic contamination ranging between 0.01 and 0.05 Mg/L, the report says.

The Tribune, 27 March 2015

Waste Management

NGT approves cluster approach for waste disposal in Haryana

The National Green Tribunal (NGT) has approved Haryana's proposal to set up 14 solid waste management centres under a centralized scheme instead of allowing each municipality to have its own disposal mechanism. The tribunal has given the go-ahead despite stiff opposition from the Union Ministry of Environment and Forests (MoEF) which wanted a decentralized approach for the collection, treatment and disposal of municipal solid waste (MSW). The 5-member Principal Bench headed by NGT Chairperson Justice Swatanter Kumar acknowledged that the proposed cluster approach would help overcome the difficulties in getting land for the MSW plants and meeting the stiff norms stipulated under the Environment Impact Assessment Notification 2006 and the MSW Rules 2000. Further, a centralized approach would be financially prudent, besides contributing to sustainable development.

The Tribune, 27 March 2015

Green Buildings

Pune: Eco-housing projects to get discounts

The Pune Municipal Corporation has proposed a concession of 10 to 50 per cent on premium charges for balconies, staircases, and lifts among others under the eco-housing project. The civic body is also thinking of offering incentives to societies that choose to carry on with the eco-friendly initiatives established by developers. The eco-housing assessment criteria have been developed by the International Institute for Energy Conservation, TERI and the Science and Technology Park, University of Pune, under the USAID-GDA sponsored eco-housing initiative. According to the new eco-housing initiative, a concession of 10 to 50 per cent on the total premium will be extended to developers, depending on their project rating. As much as 25 per cent of the applicable rebate will be given while the building proposal is approved and the rest can be

FOCUS AREAS POINTS

Site Planning	260
Environment Architecture	80
Efficient Building Materials	200
Energy Efficient Lighting	50
Solar Water Heaters	50
Water Conservation	200
Segregation of Waste	80
Other Innovative Technologies	80
Total number of points	**1000**

claimed after the project is complete and certified. No upfront incentives will be given for the development charges. The eco-housing assessment criteria include both voluntary and mandatory measures. Each measure has been assigned points depending on the environmental impact. Points can be earned by meeting the performance goal. The assessment criteria have 88 measures spread over eight focus areas — site planning, environment architecture, efficient building materials, water conservation, energy-efficient lighting, solar water heating, waste segregation and other innovative eco-friendly technologies. Only 27 of the 88 measures are mandatory.

Pune Mirror; 28 March 2015