Enviro Monitor

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Draft guidelines for biomedical waste disposal issued bar code. To check improper disposal of hazardous biomedical waste in the country, the Ministry of Environment, Forest and Climate Change has issued draft guidelines for bar code system to be adopted by the healthcare facilities and Common Biomedical Waste Treatment Facilities (CBWTFs) that helps in tracking waste from source generation to final disposal and treatment destination. The draft guidelines are in compliance to the Bio-Medical Waste Management (BMWM) Rules, 2016 issued by Central Pollution Control Board. Bar code system will also help in identification of source of generation in case waste is disposed of improperly as well as quantification of bio-medical waste generated, colour coding-wise waste handed over to the CBWTF operator by the healthcare facility, for further treatment and disposal.

Recently, a bench headed by NGT chairperson imposed penalties on nine Delhi hospitals for failing to properly manage their biomedical waste and non-functioning of their waste treatment plants.

IoT helps Telangana automate urban waste recycling operations. The Telangana government has decided to formalise the waste management process in a move to automate urban recycling operations for smart cities. The state government, in association with waste management start-up called Banyan Nation, has signed a memorandum of understanding (MoU) to deploy technology across different municipalities and help in waste management. Banyan Nation has developed a zero-waste platform to automate urban recycling operations as part of the Smart Cities Mission. Its first pilot project, currently in beta stage in Warangal district, deploys on-field bin sensors, GPS truck routers, landfill management toolkits and back-end visualisation and analytic engines to monitor and synchronise waste management.

PWD uses garbage to construct road at Bhalswa landfill. The Public Works Department (PWD) has taken a small step towards the possible replacement of ever-mounting piles of trash at Delhi's sprawling landfill sites with a public resource that everyone can use: roads. A small section of the Bhalswa landfill site, which is spread over 21 acres and receives about 2,700 tonnes of garbage every day, recently saw the successful implementation of a year-long pilot project underlined by the construction of a 300-metre-long waste-to-concrete model road on a part of the landfill.

The main highlight of the modest stretch is the utilisation of geogrids in its construction. The said technique sees the use of polymer grills to create the base of a particular structure followed by common construction methods.

DMRC facility to recycle 150 tonnes of waste daily. Delhi Metro Rail Corporation (DMRC) has commissioned a new facility at Rohini for recycling of construction and demolition (C&D) waste. The plant may also be used by other agencies for recycling C&D waste. The C&D waste transported from DMRC's locations will be recycled into green products like aggregates, manufactured sand, concrete bricks, tiles, paver blocks, kerb stones etc. The plant has a total capacity of processing 150 tonnes of waste per day,

The Hindustan Times, 18 August 2017 | The Times of India, 21 August 2017 | The Hindu, 30 August 2017 | The Financial Express, 30 August 2017 | The Pioneer, 30 August 2017

Storage up in Cauvery basin reservoirs. Heavy to very heavy showers in the rain-starved catchments for the last eight days have resulted in the total storage going up by about 6.5 tmcft in all four reservoirs in the State's Cauvery basin. Many parts of south-interior Karnataka have been experiencing torrential rain since August 22. Consequently, Krishnaraja Sagar reservoir in Mandya district, Harangi in Kodagu, Hemavati in Hassan, and Kabini in Mysuru districts have been receiving good inflow.

Water bodies' area fall by 134 sq km in Hyderabad. Hyderabad has lost more than half of the area that was under water bodies in a span of three decades. The study reported that the area under water bodies have decreased from 193.48 sq km in 1989 to 59.42 sq km in 2014. The study was conducted by researchers to find out the built up area of Hyderabad and also area under vegetation, water bodies and barren land as part of study to find out Urban Sprawl Index (USI) of the city and was published in *Journal of Urban Planning and Development.*

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Submit report on rain water harvesting in government buildings: NGT to Delhi government. The National Green Tribunal has directed the Delhi government and other agencies to submit status report on whether government buildings, bridges and flyovers have installed rain water harvesting systems and if these are functional. The tribunal had earlier directed the Centre and other public authorities to ensure that rain water harvesting systems are installed in every project, including flyovers, bridges or any other construction activity carried out by the government.

Business Standard, 17 August 2017 | The New Indian Express, 28 August 2017 | The Hindu, 30 August 2017

Foundries polluting land, water, say Arasur farmers. Farmers from Arasur (in Coimbatore, Tamil Nadu) near Avinashi have petitioned the district collector seeking to remove foundries in their area for polluting the soil, water and air. They alleged that the foundries were letting out effluents without treating them in the open grounds. They said the foundries should either be made to treat the waste or at least store in a closed shed. The farmers submitted the petition to the district collector stating that there are around 50 foundries in the area. The foundries are releasing untreated polluted smoke from chimneys and solid waste in the open.

1109 industrial units along Ganga creating maximum pollution of river. Responding to a query raised in the Lok Sabha, the Minister of State for Water Resources, River Development & Ganga Rejuvenation Mr Sanjeev Balyan said that as per data collected by the Central Pollution Control Board (CPCB) for the year 2016-17, 1109 industrial units were found to be creating maximum pollution of the river. In the financial year 2017-18, an amount of Rs 59.52 crore had been allotted to various states under the Namami Gange project of which Rs 16.25 crore had been allotted to Uttarakhand from where the river originates.

Soil, water and air contaminated with heavy metals in these Chhattisgarh villages. A recent report -- titled Poisoned -- on water, air and soil pollution in Raigarh district of Chhattisgarh, highlights a severe pollution crisis in the region with levels of several carcinogenic heavy metals in air, water and soil not meeting standards. This is probably the first time environmental parameters in this region are being monitored, say authors of the study. No town or city in Chhattisgarh is being monitored under the National Air Quality Index (NAQI) programme of the Centre. Community Health Monitoring conducted the study along with Dalit Adivasi Mazdoor Sangathan.

12 toxic metals including aluminum, arsenic, antimony, boron, cadmium, chromium, lead, manganese, nickel, selenium, zinc and vanadium were found in water, soil and sediment samples taken around the region.

Many of the metals cause respiratory disorders, shortness of breath, lung damage, reproductive damage, liver & kidney damage, skin rashes, hair loss, brittle bones, nausea, vomiting, diarrhea, stomach pains, muscle and joint pain and weakness, etc.

Copper-coated membrane makes drinking water safe. A team of researchers led by Prof. Suryasarathi Bose from the Department of Materials Engineering at IISc made the commonly used polyvinylidene fluoride (PVDF) water-filter membrane to prevent biofouling and kill bacteria. To do this they first made the inert PVDF membrane functional by blending it with a polymer (styrene maleic anhydride). Though copper oxide is an excellent antibacterial agent, it can be toxic if the concentration of copper in the water exceeds 1.3 ppm (WHO standard). So the researchers coated copper oxide with a biocompatible polymer (polyphosphoester) for controlled release of copper ions. A porous gel-like structure of copper oxide coated with the polymer was used for coating the membrane. The polymer used for coating copper has anti-fouling property.

The Times of India, 4 August 2017 | The Times of India, 9 August 2017 | The Hindu, 19 August 2017 | The Times of India, 29 August 2017

Bengaluru floods because it is 78% concrete: IISc study. Unchecked concretisation and acute loss of wetland and vegetation over the years are the two key reasons causing frequent flooding during a spell of heavy rain or monsoon in Bengaluru, according to an IISc study. Researchers from the Indian Institute of Science (IISc) said high-density urban development in catchment areas leads to an increase in impervious areas (where easy water flow is hindered, thus causing waterlogging or flooding) in the city. The IISc study, Frequent Floods in Bangalore: Causes and Remedial Measures, says paved surfaces in the city have increased up to 78% due to years of unplanned urbanisation. Researchers have established the extent of concretisation by comparing the spatial maps of the city over the years and contrasting them with the ground situation.

Mumbai rain woes: TERI experts point towards urbanization. With torrential rains inflicting misery in Mumbai, experts at TERI pointed out that the nature of the soil in the region "encourages good drainage" of water but due to urbanisation, most of the open surfaces have been covered with tar and concrete. The city of Mumbai falls under the coastal belt, characterised by high rainfall. At the same time, the natural soil strata of the region is laterite type of soil. This soil type encourages good drainage

of water. Due to urbanisation, most of the open surfaces are now covered with material like tar and concrete, thus not allowing the water to drain out. Moreover, the original areas between islands are reclaimed, resulting in shallow low lying stretches, according to TERI experts.

Experts reiterate Pune prone to urban flooding. Pune city is as prone to urban flooding as Mumbai. Experts warn that urban planning should be integrated with the study of the geology and the hydrogeology of the area so that new developments were not at the cost of water bodies in the city.

India Today, 30 August 2017 | The Times of India, 31 August 2017, -