Prelim Bits 10-04-2018

Project Dhoop

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- The 'Project Dhoop' is launched by the Food Safety and Standards Authority (FSSAI) along with National Council of Educational Research and Training (NCERT), New Delhi Municipal Council (NDMC) as well as North MCD Schools.
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- It is a unique initiative to encourage schools to shift their morning assembly to around noon-time to ensure maximum absorption of Vitamin D in students through natural sunlight.
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- The move comes in the backdrop of rising incidence of Vitamin D deficiency in the country.
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- Over 90 per cent of boys and girls in various Indian cities are deficient in Vitamin D despite most part of India receiving abundant sunshine all the year through.
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- Vitamin D deficiency occurs due to overuse of sunscreen, wearing clothes that cover most of the skin, working all day in an air-conditioned atmosphere, and other factors.
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- Vitamin D deficiency may also cause several problems including:
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1. Osteomalacia
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2. Osteoporosis
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3. Rickets
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4. Periodontitis
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Microfactory to tackle e-waste hazard

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- An Indian-origin scientist in Australia has launched the world's first microfactory that can transform the components from electronic waste items into valuable materials for re-use.
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- A microfactory is one or a series of small machines and devices that uses patented technology to perform one or more functions in the reforming of waste products into new and usable resources.
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- The e-waste microfactory that reforms discarded computers, mobile phones and printers has a number of small modules for this process and fits into a small site.
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- The microfactory has the potential to reduce the rapidly growing problem of vast amounts of electronic waste causing environmental harm and going into landfill.
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- From e-waste such as computer circuit boards valuable metal alloys such as copper and tin are extracted.
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- Other wastes such as glass and plastic from e-devices can be converted into micromaterials used in industrial grade ceramics and plastic filaments for 3D printing.
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- It can also turn many types of consumer waste such as glass, plastic and timber into commercial material and other products.
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NITI Forum for North East

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- The first meeting of newly constituted NITI Forum for North East will be held in Agartala, Tripura.
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- The 'NITI Forum for North East' was constituted in February 2018 with an aim to ensure sustainable economic growth of the North Eastern Region (NER) of the country.
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- It will also periodically review the development status in NER.
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- The secretariat for the Forum has been established in the DoNER Ministry.
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- The forum will be co-chaired by the Vice-Chairman of NITI Aayog and Minister of State, Ministry of Development of Northeastern Region (DoNER).
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- The Forum includes representation from all NE States, their Chief Secretaries and Secretaries of relevant Central Ministries/Departments, Directors of reputed institutions (IIT, IIM etc), experts and journalists have been included as members.
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Bharatpur Bird sanctuary

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- The Keoladeo National Park or Keoladeo Ghana National Park formerly known as the Bharatpur Bird Sanctuary is in Bharathpur District of Rajasthan.
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- It is a famous avifauna sanctuary that sees thousands of rare and highly endangered birds such as the Siberian Crane come to the sanctuary during the winter season.
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- It is an important wintering ground for migratory waterfowl from Eurasia, North Africa and Arabian Peninsula, as well as for resident birds.
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- It is named after a Keoladeo (Shiva) temple within its boundaries.
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- The park is in danger as a dam has been built on the upstream of the Gambhir River, considered lifeline of the sanctuary.
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- The river now feeds the wetlands only when the dam reservoir is full and its sluice gates are opened.
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- The park is recognized as a Ramsar Wetland Site as well as UNESCO World

Heritage Site.
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Stepwells

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- The Department of Post had released stamps featuring 16 step wells of India as a gesture of its concern for their steadily deteriorating state in January, 2018.
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- Stepwells are indelible symbols of ancient water conservation techniques.
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- Out of 16 featured step wells, 6 stepwells are in Rajasthan.
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- They are
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1. Turji Ka Jhalra (Jodhpur)
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2. Panna Miyan Ki Baori (Jaipur)
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3. Chand Baori (Abhaneri)
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4. Raniji Ki Baori (Bundi)
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5. Nagar Sagar Kund (Bundi)
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6. Neemrana Baori (Alwar).
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- Chand Baori in Abhaneri village of Rajasthan is one of the country's largest and deepest stepwells.
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- It was built between the 9th and 10th century by King Chanda of Pratihara dynasty.
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- This traditional water harvesting structure looks like an upside-down pyramid.
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- As one descends 20m to the bottom of the well, the intense heat dips by 5-6 C.
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- Though it is now managed by the Archaeological Survey of India, many others dotting the arid parts of the country remain neglected.
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Arsenic pollution

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- Researchers from the Central University of South Bihar, Patna, have isolated bacteria from the Ganges plains that can treat arsenic present in groundwater.
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- AK1 and AK9 belonging to the genus Pseudomonas can break down arsenic-III, implicated in arsenic poisoning, to its benign form, arsenic-V by a process called **bioremediation**.
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- Arsenic is an element widely distributed in earth’s crust, and in groundwater in many countries.
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- In India, the states of West Bengal, Jharkhand, Bihar, Uttar Pradesh, Assam, Manipur and Chhattisgarh are reported to be most affected by arsenic contamination of groundwater.
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- Long-term intake of arsenic contaminated water leads to arsenic poisoning or arsenicosis.
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- Drinking arsenic-rich water over a long period results in various health effects including skin problems, skin cancer, cancers of the bladder, kidney and lung, and diseases of the blood vessels of the legs and feet, high blood pressure and reproductive disorders.
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- WHO’s provisional guideline value for arsenic in drinking water - 0.01 mg/l (10 µg/l).
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- Permissible limit of arsenic in India in absence of an alternative source - 0.05 mg/l (50 µg/l)
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Map of the Day

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India Peninsular Rivers

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\n**Rivers**\n	\n**Origin**\n	\n**Major Tributaries**\n	\n**States through whichthe river passes**\n
\nNarmada\n	\nRises on the summit of Amarkantak Hill in Madhya Pradesh state\n	\n-\n	\nMadhya Pradesh, Maharashtra, and Gujarat\n
\nTapi\n	\nOriginates in the Betul district from a place called Multai\n	\n-\n	\nMaharashtra, Madhya Pradesh and\n\n Gujarat\n
\nMahanadi\n	\nHills of southeastern Madhya Pradesh state\n	\nSeonath, Hasdeo,Ib.\n	\nChattishgarh and Odisha\n
\nGodavari\n	\nTrimbakeshwar, near Nasik and Mumbai in Maharashtra\n	\nPranhita,\n\n Indravati, Manjira\n	\nMaharashtra,\n\n Telegana,\n\n Andhra\n\n Pradesh.\n

\n Krishna \n	\n Rises in the Western Ghats at an elevation of about 1337 m. just north of Mahabaleswar \n	\n Ghataprabha, Malaprabha, \n\n Bhima, Tungabhadra, Musi \n	\n Maharashtra, Karnataka and Andhra Pradesh \n
\n Kaveri \n	\n Brahmagiri Hill of the Western Ghats in southwestern Karnataka state \n	\n Hemavati, Kapila, Honnuhole, Lakshmana Tirtha, Kabini, Bhavani, Noyyal and Amaravati. \n	\n Karnataka and Tamil Nadu \n

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- Pranhita River is the combined flow of Wainganga, Penganga, Wardha which then drains into Godavari.
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- Narmada, Tapti and Mahi rivers run from east to west.
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Source: PIB, The Hindu

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