

# NEWS TODAY

## MINISTRY OF HEALTH & FAMILY WELFARE BANS 14 FIXED DOSE COMBINATION (FDC) DRUGS CITING HEALTH 'RISK'

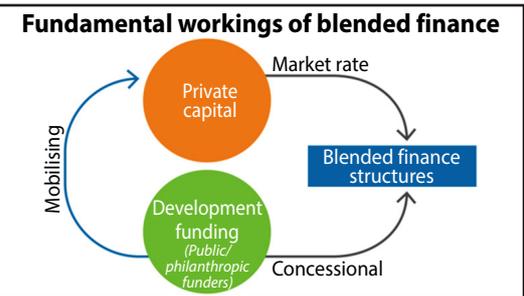
- Ban, under **Drugs and Cosmetics Act, 1940**, comes after **recommendations by an expert committee** that there is **no therapeutic justification for this FDC** and FDC may involve risk to human beings.
  - In 2016, **government banned 344 drug combinations** after it was stated they were being sold without scientific data. But makers of 15 such drugs challenged the decision.
  - Currently banned **14 FDCs are part of those 344** drug combinations.
- FDC drugs are **those which contain a combination of two or more active pharmaceutical ingredients (APIs)** in a fixed ratio.
  - It may be administered **as single entity products given concurrently or as a finished pharmaceutical product.**
- **Significance of FDC medicinal products**
  - **To benefit from** added effects of **two medicinal products** given together.
  - **Treatment of infectious diseases** like HIV, malaria and tuberculosis where giving multiple antimicrobial agents is the norm.
  - **Advantages over single entity preparations**, such as increased efficacy, a reduced incidence of adverse effects, possibly reduced cost and simpler logistics of distribution.
  - **Improved patient adherence and reduced development of resistance** in certain cases of antimicrobial use.
- **Issues with FDCs:** Dosage alteration of one drug is not possible, problem of frequency of administration etc.

### BANNED DRUGS INCLUDE

Those used for treating common infections, cough, and fever — combinations such as nimesulide and paracetamol dispersible tablets; chlorpheniramine maleate and codeine syrup; pholcodine, promethazine, amoxicillin and bromhexine and bromhexine dextromethorphan, ammonium chloride, menthol etc.

## LOW-COST FINANCE FOR THE ENERGY TRANSITION REPORT RELEASED BY INTERNATIONAL RENEWABLE ENERGY AGENCY (IRENA)

- Report is prepared **by IRENA** in close collaboration with **Ministry of New and Renewable Energy (MNRE)**.
- Report identifies **need for greater private sector engagement** in financing of energy transition projects, as well as **closer public-private collaboration** to sustain net zero pathway.
  - **Increasing cost of capital** for project financing **makes it difficult to scale up deployment of technologies** such as green hydrogen, energy storage etc.
- **Key Findings**



<b>Role of Private sector in energy transition</b>	<ul style="list-style-type: none"> <li>• Help in <b>effectively leveraging investment capital.</b></li> <li>• It can be <b>catalytic to a blended financing approach.</b></li> <li>• <b>Channelized existing products</b> such as mutual funds, private equity, impact investment funds, etc.</li> </ul>
<b>Role of Public sector in energy transition</b>	<ul style="list-style-type: none"> <li>• Providing a <b>conductive and predictable enabling environment.</b></li> <li>• Engaging and attracting private investors and developers for bankable energy transition projects.</li> <li>• <b>Support technology and programme development</b> for scaling up use of renewable</li> <li>• Energy resources (For ex: role played by <b>Indian Renewable Energy Development Agency Limited (IREDA)</b> and <b>issuance of green bonds</b> by Government).</li> </ul>
<b>Recommendations</b>	<ul style="list-style-type: none"> <li>• <b>Countries should provide a range of policy incentives</b> (economic, financial and regulatory) for deployment of <b>next set of critical technologies</b> for the energy transition.</li> <li>• <b>G20 members should</b> take the opportunity to <b>exchange knowledge and best practice.</b></li> </ul>



## DIRECTORATE GENERAL OF FOREIGN TRADE (DGFT) PERMITS IMPORT OF PET COKE AS RAW MATERIAL FOR LITHIUM-ION BATTERIES

- **Import of needle pet coke (NPC)**, with sulphur content less than 0.8%, is **permitted for making graphite anode material for lithium-ion batteries** and not for any other purposes.
- As **world's largest consumer of petcoke**, India **imports over half its annual petcoke consumption**, mainly from USA.
  - In 2018, **Government banned import of pet coke for use as fuel**, but allowed for cement, lime kiln, calcium carbide and gasification industries.
- **Petroleum coke (pet coke)** is a **carbon-rich solid material** derived from **final cracking process**, a thermo-based chemical engineering process that splits long chain hydrocarbons of petroleum into shorter chains.
  - **Grades of pet coke:** Green Coke (high moisture and volatile matter content), Calcined coke (a higher carbon content than green coke).
  - **Types of Pet coke:** NPC, Honeycomb Coke, Sponge Coke, Shot Coke
  - **Applications: Feed stock/Fuel use** (Cement, gasification, boilers etc), **Carbon source** (Electrodes, Synthetic Graphite, silicon carbide, TiO2 pigments, Carbon Raiser etc.)
- **Benefits of Petcoke over coal:**
  - **Higher calorific value** (>7800Kcal/Kg as compared to 3500-4500 Kcal/Kg for coal).
  - **Since it is hydrophobic it doesn't get wet during rainy season** and therefore don't add on extra weight (unlike coal which does).
  - **Low volatile matter** thus **no evaporation losses**.
  - **Low ash content**.

## 69% OF TRAIN ACCIDENTS BETWEEN FY18 AND FY21 DUE TO DERAILMENTS

- Finding is part of **Comptroller and Auditor General of India (CAG) report** on 'Derailment in Indian Railways' that **also highlighted that:**
  - **Major factor** responsible for derailment was **related to maintenance of track, followed by deviation of track parameters** beyond permissible limits.
  - **Targets kept for track renewals were not commensurate with actual requirement** on ground.
- **Issue of railway safety**, and role of technology in addressing it, **came to the forefront following Odisha train accident**.
  - It is believed that **change in electronic interlocking (EI) system** led to Odisha train accident.
    - EI System, a **processor based system**, is an integral part of **Railway Signalling, by which functions in a yard are controlled** to ensure safe passage of the train through the controlled area.
- **Steps taken to improve safety by Indian Railways**
  - **Railway Safety fund named Rashtriya Rail Sanraksha Kosh (RRSK)**.
  - **Commission of Railway Safety (CRS)**, under Ministry of Civil Aviation, deals with matters pertaining to safety of rail travel and train operation.
  - **Switch over to LHB** (Linke Hofmann Busch) type coaches as ICF coaches were more prone to derailment.
  - **Automatic Train Protection (ATP) system "Kavach"** for enhancing safety of running trains.

### ABOUT KAVACH

It is **developed by Research Design and Standards Organisation (RDSO)** under Ministry of Railways.

#### Key features

- **Aid Loco Pilot to avoid Signal Passing At Danger** and over speeding.
- Controls speed of the train by **automatic application of brakes in case Loco Pilot fails** to apply.
- Help in train **running during inclement weather** such as dense fog.
- Collision avoidance by **direct loco to loco communication**.
- **Supports feature of SOS** in case of any mishap.

### ISSUES DUE TO PET COKE USE:

- It has **over 80% Carbon** and emits **5 to 10% more CO2 than coal** on a per unit of energy basis.
- **Apart from sulphur**, it also releases **other toxic gases** including **nitrous oxide, mercury, arsenic, chromium, nickel, and hydrogen chloride** after burning.
- Contains **heavy metal content**.

## INCREASED RAINFALL ALONE WILL NOT HELP GROUNDWATER RECOVERY

- Finding is part of a **study by a team from IIT Gandhinagar** to understand **variability of groundwater storage under warming climate**.
 

**Key findings:**

  - **A warming climate** will increase **frequency of hydroclimate extremes** — floods and droughts.
  - **Increased evapotranspiration** due to warming climate **will limit water availability** for groundwater recovery.
  - Warming climate **will increase amount of summer monsoon rainfall** (by 6-8%) that north India would receive.
    - However, **Pumping of groundwater from deeper aquifers** in Indo-Gangetic Plain **will make it hard for its recovery from increased rainfall**.
- As per World Bank, **India is the largest groundwater user**. Groundwater **meets nearly 80% of the country's drinking water and two-thirds of its irrigation needs**.
  - Central Groundwater Board estimates that **about 14% of groundwater blocks are overexploited**, while another **4% are critical**.
- **Steps taken for groundwater management**
  - **Ministry of Jal Shakti issued guidelines for regulation and control** of ground water extraction.
  - Initiatives like **Atal Bhujal Yojana** and **National Project on Aquifer Management** for effective management and regulation.
  - **India-Groundwater Resource Estimation System (IN-GRES)** software.
  - **Mobile application - Jaldoot-** to monitor underground water levels.
  - **Per Drop More Crop component** of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) **to improve water use efficiency**.

## BEVERAGE LOBBY DIFFERS WITH WHO ON NON-SUGAR SWEETENERS (NSS)

- A **lobby group** representing Coca-Cola, PepsiCo, Red Bull, Dabur etc. is of the view that **recent WHO guidelines on NSS are not scientifically rigorous**.
  - **WHO had said NSS** such as aspartame and stevia **do not help in weight loss**, while increasing risk of certain diseases.
- **NSS** (low-calorie sweeteners, artificial sweeteners etc) **contains few to no calories** but have a **higher intensity of sweetness per gram than sweeteners with calories**—like table sugar, fruit juice concentrates etc.
  - **NSS include synthetically derived chemicals and natural extracts** that may or may not be chemically modified (refer table).
- People may use NSS in place of sugar **to consume fewer calories or less sugar** or to **better control their blood glucose, might reduce the risk of dental caries etc.**
- **Concerns:** increased risk of developing type 2 diabetes and cardiovascular disease; some NSS has been found to cause DNA damage etc.

<b>Acesulfame</b>	It is derived from aceto-acetic acid. It is used in a wide range of non-medicinal products.
<b>Aspartame</b>	It is a dipeptide. It is completely hydrolysed in gastrointestinal tract to methanol, aspartic acid, and phenylalanine.
<b>Saccharin</b>	About 300 times as sweet as sucrose. It is used to sweeten foods and beverages.
<b>Sorbitol</b>	A polyhydric alcohol, is used as a sweetening agent in many oral medicinal liquids.
<b>Neotame</b>	Neotame is a derivate of aspartame.
<b>Monk Fruit</b>	Also known as luo han guo/ Siraitia grosvenorii, a fruit extract from a plant native to Southern China.
<b>Steviol Glycosides</b>	Extracted from South American Stevia plant, Stevia rebaudiana

### ALSO IN NEWS



#### Commissions of Inquiry Act, 1952

- Government has notified a **Commission of Inquiry under Commissions of Inquiry Act, 1952**, to inquire into incidents of violence in Manipur.
- It **authorises central and state governments to appoint inquiry commissions** to make inquiries in definite matters of public importance.
  - **Central government can appoint** a commission to make inquiry into **any matter relating to any of the entries enumerated in List I and III.**
  - **State governments can appoint** commissions for entries enumerated in **List II or III of Schedule VII.**
- A commission of inquiry has **powers of a civil court.**



#### United Nations Relief and Works Agency for Palestine Refugees (UNRWA)

- United Nations **appealed for sustainable funding UNRWA**, which is on the brink of financial collapse.
- UNRWA is a **UN agency established by the General Assembly in 1949** and mandated **to provide assistance and protection to Palestine refugees registered with UNRWA.**
  - Its mission is **to help Palestine refugees in Jordan, Lebanon, Syria, West Bank, including East Jerusalem and Gaza Strip** achieve their full human development potential.
- It is **funded almost entirely by voluntary contributions** from UN Member States.



#### Model Education Loan Scheme

- Kerala High Court stated that a **student's Credit Information Bureau (India) Limited (CIBIL) score cannot be a factor in rejecting an education loan application.**
  - CIBIL score involves an **individual's credit payment history across loan types** and credit institutions over a period of time.
- Model loan scheme **aimed to provide financial support from the banking system** to deserving or meritorious **students pursuing higher education** in India and abroad.
  - It was prepared (in 2001) **by Indian Banks Association (IBA).**
- In 2019, **RBI advised all scheduled commercial banks to adopt the scheme** formulated by IBA.



#### Reverse Boring

- **Central Pollution Control Board suspects that a private liquor factory** in Ferozepur district (Punjab) injected **contaminated water into the ground through reverse boring.**
- **Boring is done to lift underground water** while reverse boring is a concept in which **a deep trench is drilled** in the ground **not to draw water but to dispose of it.**
- In reverse boring, **soak pits are connected with borewell** through which the wastewater gets disposed of and gets mixed with underground water and pollutes it.

 <p><b>Council of Scientific &amp; Industrial Research (CSIR)-Aroma Mission</b></p>	<ul style="list-style-type: none"> <li>● CSIR- Indian Institute of Integrative Medicine (CSIR-IIIM) is <b>supporting farmers in the cultivation of Lavender in the Bhadrawah</b>, Doda district, J&amp;K under CSIR-Aroma Mission.</li> <li>● Aroma Mission will <b>promote the cultivation of aromatic crops for essential oils</b> that are in great demand by aroma industry <b>for fuelling the growth of aroma industry and rural employment.</b> <ul style="list-style-type: none"> <li>➢ Under it, <b>Lavender cultivation</b> is being <b>promoted in the temperate regions of J&amp;K.</b></li> </ul> </li> <li>● Aim of the project is <b>to increase the income of small and marginal farmers and develop agriculture-based Startups.</b></li> </ul>
 <p><b>Uhl river</b></p>	<ul style="list-style-type: none"> <li>● <b>HP and Punjab are set for a face off over ownership of Shanan power project</b> located on Uhl river.                     <ul style="list-style-type: none"> <li>➢ 99-year lease <b>given to Punjab by then ruler of Mandi, Raja Joginder Singh Bahadur</b>, would end in March 2024.</li> <li>➢ It is <b>situated in Jogindernagar (Mandi)</b> of Himachal Pradesh in Brot Valley.</li> </ul> </li> <li>● <b>Uhl river originates from Thamsar glacier</b> which is situated in <b>Dhauladhar ranges</b> and <b>flows through Uhl valley</b> (also famous as Chohar valley).                     <ul style="list-style-type: none"> <li>➢ Uhl river is <b>water basin of Beas river.</b></li> <li>➢ After crossing Chohar valley, <b>Uhl river meets Beas river.</b></li> </ul> </li> </ul>
 <p><b>Global Vaccine Research Collaboration (GVRC)</b></p>	<ul style="list-style-type: none"> <li>● Union Health Minister addressed GVRC discussion. Indian government <b>is working to build consensus among G-20 member States and others, for a proposed GVRC.</b> <ul style="list-style-type: none"> <li>➢ <b>Department of Pharmaceuticals is working with non-profit Program for Appropriate Technology in Health (PATH) and Coalition for Epidemic Preparedness Innovations (CEPI)</b> for the initiative.</li> </ul> </li> <li>● <b>Initiative will focus on</b> <ul style="list-style-type: none"> <li>➢ <b>Addressing major gaps</b> in vaccine R&amp;D,</li> <li>➢ Establishing a <b>structure and principles for better preparedness.</b></li> <li>➢ <b>Improving coordination</b> and foster an <b>enabling environment for vaccine R&amp;D.</b></li> </ul> </li> </ul>
 <p><b>Thiruvavaduthurai Math</b></p>	<ul style="list-style-type: none"> <li>● <b>Recently PM placed the Sengol or sceptre</b> presented by head of Thiruvavaduthurai Math to India's first PM <b>in the new Parliament building.</b></li> <li>● <b>Established by Namasivaya Murthy</b>, a Saivite saint and scholar, <b>in 16th century</b>, this non-Brahmin Math <b>had outstanding scholars in Tamil and Saivite philosophy.</b> <ul style="list-style-type: none"> <li>➢ Heads of Math were also <b>patrons of Tamil scholars and musicians.</b></li> <li>➢ <b>Thirumoolar</b>, Siddhar and one of the Saivaite saints and <b>author of Thirumanthiram</b>, <b>attained enlightenment</b> under a Peepal tree <b>in Thiruvavaduthurai.</b></li> </ul> </li> <li>● Math is on the <b>southern banks of river Cauvery.</b></li> </ul>
 <p><b>Places in News</b></p>	<p><b>Comoros (Capital: Moroni)</b></p> <ul style="list-style-type: none"> <li>● As part of Indian Navy's long-range deployment, INS Trishul visited port Anjouan, Comoros.</li> <li>● <b>Political Boundaries</b> <ul style="list-style-type: none"> <li>➢ They are a group of islands at <b>northern end of Mozambique Channel of Indian Ocean, between Madagascar and southeast African mainland.</b></li> <li>➢ The islands from northwest to southeast include <b>Grande Comore, Mohéli, Anjouan and Mayotte.</b> <ul style="list-style-type: none"> <li>▪ <b>Three of Comoro Islands in Indian Ocean</b>, off the coast of East Africa.</li> <li>▪ <b>Fourth island Mayotte</b>, is claimed by country of Comoros but administered by France.</li> </ul> </li> </ul> </li> <li>● <b>Geographical features</b> <ul style="list-style-type: none"> <li>➢ Islands emerged from floor of <b>Indian Ocean as a result of volcanic activity.</b></li> <li>➢ <b>Grande Comore</b> is the <b>largest and loftiest island.</b></li> <li>➢ <b>Mohéli</b> is the <b>smallest island</b> of the group.</li> </ul> </li> </ul> 