

PM ROLLS OUT E20 FUEL AT INDIA ENERGY WEEK (IEW) 2023

- E20 fuel, a blend of 20% ethanol and 80% petrol, was launched 2 year ahead of target and will be rolled out across country in a phased manner.
 - > IEW, under Ministry of Petroleum & Natural Gas, aims to showcase India's rising prowess as an energy transition powerhouse.

• An ethanol blend is a blended motor fuel containing ethyl alcohol that is at least 99% pure, derived from agricultural products, and blended exclusively with gasoline.

- > Apart from sugarcane-based raw materials, ethanol production from surplus rice with Food Corporation of India and Maize is also allowed.
- Government has been implementing Ethanol Blended Petrol Programme wherein OMCs sell petrol blended with ethanol up to 10%.
 - > Target of achieving average 10% blending was achieved in June, 2022 and target of 20% ethanol blending was advanced to 2025 (from 2030).
- - > Less polluting fuel and offers equivalent efficiency at lower cost than petrol.
 - > Achieving energy security, lowering crude oil import bill and transitioning to a low
 - > Enable local enterprises and farmers to participate in energy economy.

Union Budget 2022-23 announced **MEASURES TAKEN TO IMPROVE** an additional differential excise duty on unblended fuel. BLENDING

ETHANOL

Interest subvention scheme extended to grain-based distilleries.

Use of automotive fuel E12 (12% ethanol with 88% petrol) & E15 notified.

Amendments to National Policy on Biofuels.

PM LAID FOUNDATION STONE OF SOUTH INDIA'S 1ST INDUSTRIAL CORRIDOR PROJECT

- Project will be implemented at 32 Projects in 4 Phases under 11 Tumakuru (Karnataka) as part of National **Industrial Corridor programme** (NICP).
 - > Krishnapatnam (Andhra Pradesh), **Tumakuru, and Ponneri** (Tamil Nadu) has been identified as priority nodes under NICP's **Chennai Bengaluru Industrial Corridor** (CBIC).
- NICP aims to promote world class manufacturing facilities and develop futuristic industrial cities in India. Broad objective is to provide plug and play infrastructural facilities for setting up large scale manufacturing units.
 - > Delhi Mumbai Industrial Corridor was the first corridor taken up for development in 2011.

- **Corridors forming part of National** Infrastructure Pipeline
- Delhi-Mumbai Industrial Corridor (DMIC)
- Amritsar-Kolkata Industrial Corridor (AKIC)
- Chennai-Bengaluru Industrial Corridor (CBIC)
- Vizag-Chennai Industrial Corridor (VCIC) - Bengaluru-Mumbai Industrial Corridor (BMIC)
- Hyderabad Nagpur Industrial Corridor (HNIC)
- Hyderabad Warangal Industrial Corridor (HWIC)
- Hyderabad Bengaluru Industrial Corridor (HBIC)
- Extension of CBIC to Kochi via Coimbatore
- Delhi Nagpur Industrial Corridor (DNIC)
- > Subsequently, Amritsar- Kolkata, CBIC, Vizag-Chennai, East Coast etc. were added.
- Need for industrial corridors
 - > To foster global manufacturing, investment destination hubs and smart cities with best in-class infrastructure.
 - > To unleash manufacturing potential in the country and raising its contribution to GDP by creating quality infrastructure ahead of demand.
 - > To expand industrial output, increasing employment opportunities, provide better living and social facilities for workforce.
- Important features of NICP
 - > Land parcels are developed for immediate allotment to manufacturing units.
 - > Statutory clearances including environment clearance are being taken beforehand.
 - > National Industrial Corridor Development & Implementation Trust (NICDIT) for unified development.







POWERFUL EARTHQUAKES IN TURKEY AND SYRIA LEAVE OVER 3,800 DEAD

- Hit initially by a magnitude 7.8 earthquake, dozens of aftershocks followed the initial quake.
 - > Magnitude is related to amount of seismic energy released at hypocenter of earthquake.
 - Richter Scale, Moment Magnitude scale etc are used to measure magnitude.
- Region where earthquake has struck lies along a seismic fault line called Anatolia tectonic block that runs through northern, central, and eastern Turkey.
 - > Seismicity in this region is a result of interactions between African, Eurasian, and Arabian plates.
 - > Arabian plate is known to be pushing northward, which results in a slight westward movement for Anatolian plate, where

Turkey is located.

- One of the largest strike-slip earthquakes to occur in recent times, it struck along East Anatolian Fault Zone.
 - > Strike-slip faults are vertical (or nearly vertical) fractures where blocks have mostly moved horizontally.
 - In these faults, two plates move parallel but in opposite direction from one another.
- Turkey bridges continents of **Europe (via. Eastern Thrace)** and Asia (via. Anatolian Plateau); divided by Dardanelles, Sea of Marmara, and Bosporus Strait.
 - > It is surrounded by Bulgaria and Greece in Northwest; Georgia, Armenia, **Azerbaijan** and **Iran** to east; and **Syria** and **Iraq** to South.

DIGITAL **GOVERNMENT SETS UP COMPETITION LAW FOR REGULATIONS**

Panel chaired by Secretary of Ministry of **Corporate Affairs** and will **examine** various regulatory aspects in dealing challenges with emerging from digital economy.



- > Digital economy refers to a broad range of economic activities that use digitized information and knowledge as key factors of production.
- > India's consumer Digital Economy is expected to reach US\$1 trillion market by 2030, from \$537.5 billion in 2020.
- Panel will also examine need for an ex-ante regulatory mechanism for digital markets through a separate legislation.
 - > Ex-Ante regulation aims at identifying issues in market beforehand.
- > Currently, Competition Act, 2002 regulates practices having adverse impact on competition.
- Earlier, a **Parliamentary Standing Committee report** also discussed several types of anti-competitive practices (refer image) by Big Tech companies (such as Google, Apple) and recommended suggestions such as:
 - > Frame a definition for systemically important digital intermediaries (SIDIs) to counter monopoly.
 - > Separate Digital Competition Act to ensure a fair, transparent and contestable digital ecosystem.
 - > Specialized digital markets unit within Competition Commission of India to closely monitor SIDIs.
 - > Strict regulation on data usage for advertising and curbs on deep discounting, bundling/tying of services.



YEARS OF INDIA-SOUTH **KOREA DIPLOMATIC TIES**

- Relations started with bilateral consular relations in 1962. In 1973, it was upgraded to diplomatic-ties (Ambassador-level).
- Key areas of engagement
 - > Both signed Strategic Partnership in 2010 which was upgraded to 'special strategic partnership' in 2015 and defence cooperation lies at heart of this partnership.
 - > Economic
 - Comprehensive Economic Partnership Agreement (CEPA), operationalized on 1st January 2010.
 - Civil Nuclear Energy Cooperation Agreement in 2011.
 - In 2022, trade between two nations reached an all-time high at USD 27.8 bn. Target is to reach **USD 50 bn by 2030.**
 - Also launched 'Korea Plus' initiative to promote and facilitate Korean Investments in India.

> Cultural

- Sharing Kinship and **Buddhist** Connection
- According to "SamgukYusa" written in 13th century, a Princess from Ayodhya married King Kim-Suro of Gaya Confederacy, Korea and became Queen Hur(Heo) Hwang-ok in 48 AD.

> Others

■ 1st 2+2 dialogue at Secretary/Vice Minister of Foreign Office and Defence Ministry between two nations was held in 2021; synergising India's 'Act East Policy' with South Korea's 'New Southern





30TH ANNIVERSARY OF THE INDO-RUSSIAN FRIENDSHIP TREATY OF 1993

- Treaty of Friendship and Cooperation replaced Treaty of Peace, Friendship and Cooperation (1971) between India and Union of Soviet Socialist Republics (USSR).
 - > 1971 agreement expired because one of the signatories USSR- had ceased to exist (dissolved in 1991).
- Key areas of cooperation between India-Russia

Political	 Annual Summit between India's PM and Russian President is the highest institutionalized dialogue mechanism since Strategic Partnership of 2000. In 2010, strategic partnership was elevated to Special and Privileged Strategic Partnership. 2+2 Ministerial Dialogue (Foreign and Defence)
Defence	 Russia is a major supplier of India's major defense items (e.g. S-400 missile system, INS Vikramaditya). Also, both jointly produce BrahMos.
International/ Multilateral Cooperation	 Russia supports India's bid for a permanent seat in UNSC. Active engagement at International/Multilateral Organizations and connectivity projects such as BRICS, SCO, INSTC (International North-South Transport Corridor) etc.
Trade and Economic	 Bilateral trade was \$13.2 billion in FY 2021-22. Targets of increasing bilateral investment to \$50 billion and bilateral trade to \$30 billion by 2025.
Others	• Both nations enjoy strong relationships in Nuclear Energy (Kudankulam Plant), Space, Science and Technology etc.

ALSO IN NEWS



Remission

- Supreme Court has **turned down** Uttar Pradesh government **plea to not bind the governor** with a deadline of three months to decide on remission pleas of convicts serving life term.
 - ➤ The state has 2,248 cases of remission pending.
- Remission refers to reduction of the sentence of a person without changing the character of the sentence.
- Article 161 empowers the Governor to grant remissions of punishment of any person convicted of any offense against any law relating to a matter to which the executive power of the State extends.



Trade and Technology Council (TTC)

- Strengthening India-EU relationship as strategic partners, three working groups are formed under India-EU TTC on:
 - > Strategic Technologies, Digital Governance and Digital Connectivity
 - > Green and Clean Energy Technologies
 - > Trade, Investment and Resilient Value Chains
- TTC is a strategic coordination mechanism to allow both partners to tackle challenges at nexus of trade, trusted technology and security; deepening India-EU bilateral relationship in these fields.
 - ➤ It is the first such mechanism for India and second for EU, after US-EU TTC.
 - > India-EU TTC was launched in April 2022.



Vivad se Vishwas 1

- Department of Expenditure has provided reliefs to MSMEs under Vivad se Vishwas-I for past goods and services procurement contracts.
- Vivad se Vishwas-I was announced in Budget Speech 2023-24 to overcome difficulties faced by MSME's in last two years due to COVID-19.
 - > In cases of failure by MSMEs to execute contracts during COVID period, 95% of forfeited amount relating to bid or performance security, will be returned to them by government and government undertakings.
- Grant of relief will be monitored through Government e-Marketplace (GeM).



Transport and Marketing Assistance (TMA) for Specified **Agriculture Products**

- Union Budget 2023-24 has **cut the allocation for TMA to a meagre ₹1 lakh.**
- TMA scheme was launched to provide assistance for international component of freight, to mitigate disadvantage of higher freight costs faced by Indian exporters of agriculture products.
 - > Scheme was launched, under **Ministry of Commerce**, in 2019.
- All exporters, duly registered with relevant Export Promotion Council as per Foreign Trade Policy, of eligible agriculture products, are **covered** under the scheme.







Agriculture Extension System

- Ministry of Agriculture & Farmers Welfare signed a MoU with Digital Green enterprise to build a national level digital extension platform.
 - > Platform will host a digital library of curated multi-format multi-lingual content and will help deliver curated content to farmers on time.
- Agriculture extension system bridges the gap between research labs to a farmer's field.
- It offers advice and information to help them solve their problems, increase the efficiency of the family farm, increase production etc.



Keoladeo National Park

- Rajasthan has proposed to construct a zoo inside this park popularly known as Bharatpur bird sanctuary.
- It is a Ramsar as well as a World Heritage Site.
- Due to its strategic location in the middle of Central Asian migratory flyway and presence of water, large congregations of ducks, geese, coots, pelicans and waders arrive in the winter.
- Wetlands of Keoladeo are not natural, they are dependent on monsoon and on water pumped in from outside.
- Fauna and Flora: Some 364 species of birds, including rare Siberian crane.



Wolf 1069 b

- Astronomers have discovered an exoplanet Wolf 1069b which is orbiting a red dwarf star Wolf 1069.
 - > An exoplanet is any planet beyond our solar system.
 - > Red dwarfs are stars with very low mass and are generally referred to as coolest stars.
- It is orbiting in its star's habitable zone (Goldilocks zone), making it a prime candidate for liquid water to potentially exist on its surface.
- It is **tidally locked to its parent star**, meaning one side is always in daylight and other is always in darkness.



Extended Reality (XR)

- An MoU was signed between ISRO and IIT Madras to collaborate on application of XR and other technologies in Indian Human Spaceflight Program (IHSP).
 - > IIT Madras will develop training module for IHSP using XR.
- XR refers to all real-and-virtual combined environments and human-machine interactions generated by computer technology.
- It is an umbrella term that covers virtual reality (VR), augmented reality (AR), mixed reality (MR)
- Applications of XR: Helps train surgeons by enabling interaction with 3D images, gives customers the ability to try before they buy, Enables virtual field trips etc.



Voice deepfakes

- A voice deepfake is one that closely mimics a real person's voice. People use AI and robust **computing power** to generate such voice clones.
 - >The voice can accurately replicate tonality, accents, cadence, and other unique **characteristics** of the target person.
- Threats
 - > It can be used to defraud users, carry out cybercrime, or defame celebrities.
 - > Deepfake audios can make racist, abusive, and violent comments.
- Ways to detect: Multi Factor authentication and anti-fraud solutions, Programmes like Deeptrace



Yuva Sangam Portal

- Yuva Sangam registration portal was launched.
- It is an initiative of Government of india to strengthen people to people connect especially between youth belonging to North Eastern India and other States.
- It will focus on conducting exposure tours of youth between 8 North Eastern States and other States
- It is conceptualized under Ek Bharat Shreshtha Bharat (EBSB) in collaboration with various other ministries and departments such as Culture, Tourism, Railways etc.
 - > EBSB aims to promote mutual understanding between people of different states/UTs through state/UT pairing.







