

August - 14

TNPSC BITS

- ❖ The Union Ministry of Culture and Tourism announced that the third edition of the "Har Ghar Tiranga" (HGT) campaign will take place from August 9 to 15, 2024.
- ❖ The first BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) Business Summit meeting was held in New Delhi.
- ❖ The Cabinet Committee on Economic Affairs approved eight railway projects with total estimated cost of ₹ 24,657 crore.
- ❖ Three underwater geographical structures located in the Indian Ocean have been awarded names proposed by India.
 - The names are: Ashoka seamount, Chandragupt ridge and Kalpataru ridge.

NATIONAL

Million Designers, Billion dreams

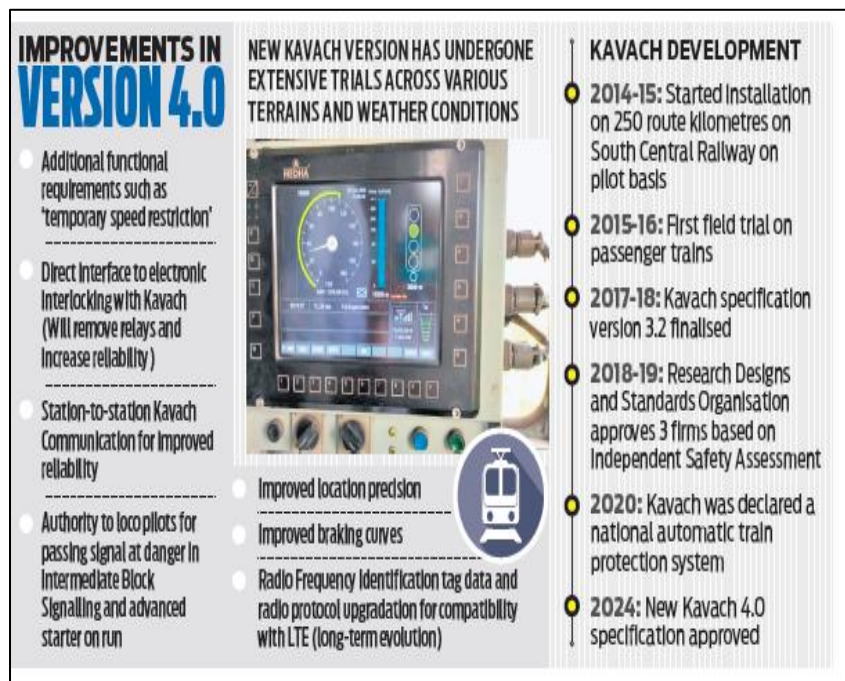


- ❖ The Deendayal Antyodaya Yojana–National Rural Livelihoods Mission (DAY-NRLM) has announced the launch of the initiative "Million Designers, Billion Dreams."
- ❖ It aims to empower individuals across India with systems design know-how to tackle complex societal challenges.

- ❖ It is a unique initiative designed to enhance the capacity of individuals through systems design know-how.
- ❖ It targets rural leaders, frontline change agents and village entrepreneurs, equipping them with the skills to create impactful, scalable solutions.

Kavach 4.0

- ❖ The railways have approved the installation of the “Kavach-4.0” anti-collision device on 10,000 locomotives.
- ❖ The new system surpasses the previous Kavach-3.2 model in technological advancement and reliability.
- ❖ The existing Kavach-3.2 system is effective on 1,465 routes and operational on 144 locomotives.



IMPROVEMENTS IN VERSION 4.0

- Additional functional requirements such as 'temporary speed restriction'
- Direct Interface to electronic Interlocking with Kavach (Will remove relays and Increase reliability)
- Station-to-station Kavach Communication for Improved reliability
- Authority to loco pilots for passing signal at danger in Intermediate Block Signalling and advanced starter on run

NEW KAVACH VERSION HAS UNDERGONE EXTENSIVE TRIALS ACROSS VARIOUS TERRAINS AND WEATHER CONDITIONS

- Improved location precision
- Improved braking curves
- Radio Frequency Identification tag data and radio protocol upgradation for compatibility with LTE (long-term evolution)

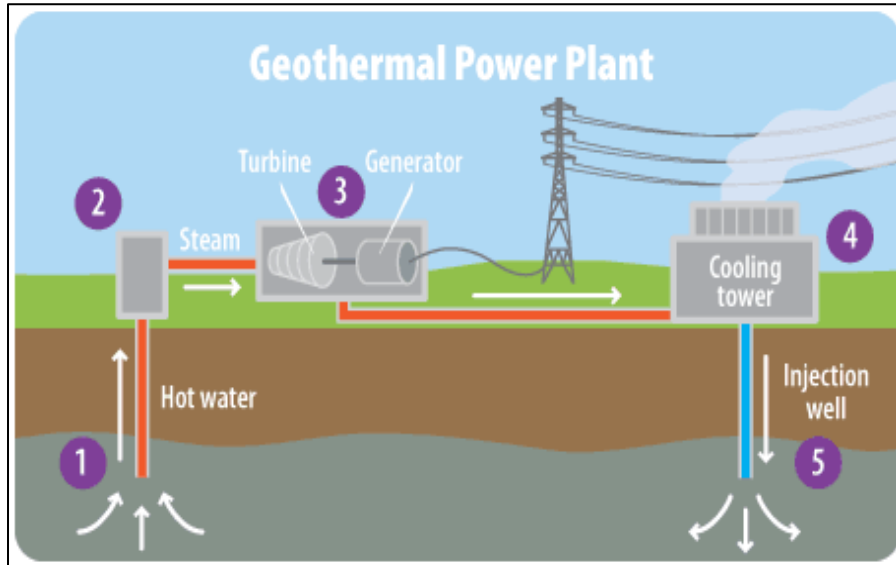
KAVACH DEVELOPMENT

- 2014-15: Started Installation on 250 route kilometres on South Central Railway on pilot basis
- 2015-16: First field trial on passenger trains
- 2017-18: Kavach specification version 3.2 finalised
- 2018-19: Research Designs and Standards Organisation approves 3 firms based on Independent Safety Assessment
- 2020: Kavach was declared a national automatic train protection system
- 2024: New Kavach 4.0 specification approved

Geothermal Power Potential in India 2024

- ❖ India has identified a potential of approximately 10,600 MW of geothermal power.
- ❖ The Geological Survey of India's (GSI) report is titled 'Geothermal Atlas of India, 2022'.
- ❖ A 20-kW pilot geothermal power plant has been commissioned by Singareni Collieries Company Limited (SCCL) in Telangana.
- ❖ Geothermal Energy is renewable heat energy generated and stored in earth.

- ❖ Geothermal technology extracts this energy/heat for direct heating and cooling, or convert it into electricity.



INTERNATIONAL

Africa - Urgent Mpxv Outbreak 2024

MPOX OUTBREAK AWARENESS

A viral disease caused by monkeypox virus that's rare in humans. A single confirmed case is considered an outbreak.

Important Information:


| |
|--|
| Transmission: Direct contact with infected skin/other lesions in the mouth/genital area/respiratory droplets. |
| Incubation period: 3 to 17 days |
| Symptoms: Skin rash/mucosal lesion, fever, headache, swollen lymph nodes which can last 2-4 weeks |
| Treatment: Hydration, skin care & pain management |
| Prevention: Avoid contact with infected persons/ animals, use protective gear when handling suspected cases & wash hands frequently |

- ❖ Monkeypox outbreak began in Democratic Republic of Congo but has now spread over nine other African countries including Burundi, Central African Republic, Rwanda and South Africa.

- ❖ The mpox outbreak was last reported during 2022-23 and has intensified since then.
- ❖ The infection is similar to smallpox which was effectively eradicated in 1980.
- ❖ But mpox has continued to make headlines in central and west Africa.
- ❖ Historically, the first human case of mpox was recorded in DRC in 1970.
- ❖ Mpox is a zoonosis, a disease that is transmitted from animals to humans.

ECONOMY

Rural Youth Employment Report – 2024



Up to 85% employed youth in rural places want a job change.

Above 60% male youth and 70% female youth do not want to migrate out of their villages for work.

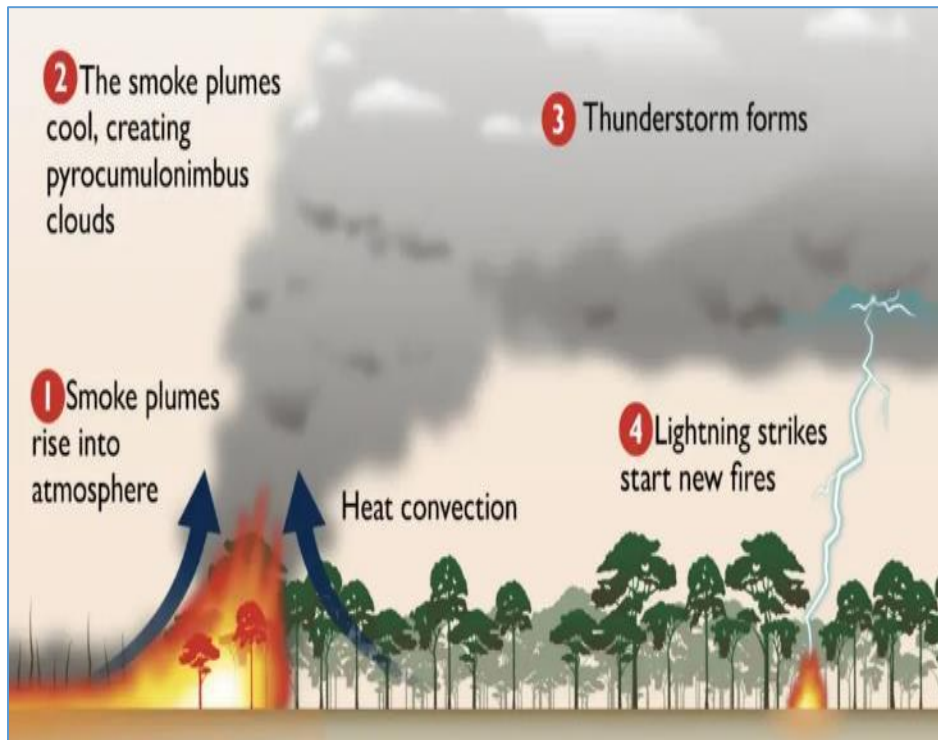
Above 60% male youth and 70% female youth do not want to migrate out of their villages for work.

- ❖ Nearly half of rural youth in India's primary source of income was from sales of agricultural produce.
- ❖ It is followed by daily wage labour and retail or wholesale trade
- ❖ Majority (70% - 85%) of those currently engaged in the workforce in some capacity said they were looking for a change in work.
- ❖ Driver or electrician job were popular among men respondents.
- ❖ Tailoring (64.6%) and beauty (23%) were popular among women respondents.

- ❖ 55% men and 40% women currently owning businesses also wanted to transition to a salaried job.
- ❖ Over 60 per cent male and 70 per cent females preferred to find work in or close to their villages, even when income was 20-30 per cent lower.

SCIENCE AND TECHNOLOGY

Pyrocumulonimbus Cloud



- ❖ The wildfires are currently raging in the United States and Canada are so intense that they have created 'pyrocumulonimbus' clouds.
- ❖ They have the potential to spit out thunder and spark more fires.
- ❖ Before 2023, 102 pyrocumulonimbus were recorded globally in a single year on average - 50 of them were seen in Canada.
- ❖ They occur only when there is an extremely hot wildfire.
- ❖ Volcanic eruptions can also lead to the formation of pyrocumulonimbus clouds.
- ❖ For instance, these clouds were formed during the Australian bushfires of 2019-2020 when temperatures crossed 800 degrees Celsius.
- ❖ These clouds can reach heights of 50,000 feet and generate their own systems of thunderstorms.
- ❖ These clouds can produce lightning, but do not generate much rain.

- ❖ As a result, they can spark new wildfires many kilometres away from the main blaze.

ENVIRONMENT

Miombo forest Protection



- ❖ The United Nations Food and Agriculture Organization (FAO) and the Italian Agency for Development Cooperation (AICS) have signed two agreements for the Miombo forest Protection.
- ❖ They will implement projects for protecting the miombo forest and facilitating trade in the border region between Mozambique and Zimbabwe.
- ❖ The first project was the Integrated Transboundary Sustainable Management of Miombo Forests.
- ❖ The second project is "Zim-Moza Agriculture Value Chain & Trade Development Project" (Zim-Moza ATDP).
- ❖ The Miombo is a biome that includes tropical and subtropical grasslands, bushlands, and savannahs.

- ❖ It also encompasses four bio-regions and is responsible for maintaining the Greater Zambezi, one of the most important transnational river basins.

REPORTS AND INDICES

Fortune's Global 500 list for 2024



- ❖ Reliance Industries has improved its ranking in Fortune's Global 500 list for 2024 to 86 from 88.
- ❖ The company has gained 69 places in the last three years from 155 of 2021.
- ❖ India has nine companies in the Fortune's Global 500 list this year.
- ❖ Five of them from the public sector – IOCL, LIC, ONGC, BPCL and SBI – and four from the private sector.
- ❖ Walmart topped the list for 11th consecutive year.

Top 10 richest global central banks – 2024

- ❖ The top 10 wealthiest central banks in the world by total assets, as compiled by Sovereign Wealth Fund Institute (SWFI).
- ❖ Federal Reserve System of North America topped in the list
- ❖ It is followed by People's Bank of China and Bank of Japan.
- ❖ India's Reserve Bank of India ranks 12th around the world.

- ❖ RBI balance sheet grew by 11.08% year on year to Rs 70.47 trillion as of March 31, 2024.

| Rank | Name of the Bank | Country | Region |
|------|------------------------|-------------|---------------|
| 1 | Federal Reserve System | USA | North America |
| 2 | People's Bank of China | China | Asia |
| 3 | Bank of Japan | Japan | Asia |
| 4 | Deutsche Bundesbank | Germany | Europe |
| 5 | Bank of France | France | Europe |
| 6 | Norges Bank | Norway | Europe |
| 7 | Bank of Italy | Italy | Europe |
| 8 | Bank of England | UK | Europe |
| 9 | Bank of Spain | Spain | Europe |
| 10 | Swiss National Bank | Switzerland | Europe |

PERSONALITIES, AWARDS, AND EVENTS

Nobel Prize-Winning Physicist Tsung-Dao Lee



- ❖ Chinese-American physicist Tsung-Dao Lee passed away recently.

- ❖ He has developed a model for studying various quantum phenomena known as the “Lee model”.
- ❖ In 1957, Prof. Lee was awarded the Nobel Prize in physics together with Chen-Ning Yang.
- ❖ He became the second-youngest scientist to receive a Nobel Prize.
- ❖ He won many other accolades including the Albert Einstein Award in Science, the Galileo Galilei Medal and the G. Bude Medal.

IMPORTANT DAYS

World Lion Day 2024 - August 10



- ❖ It aims to increase public knowledge of wild lion conservation and protection.
- ❖ World Lion Day was first established in 2013 by Big Cat Rescue.
- ❖ The total population of wild lions in Africa could be around 20,000 and 25,000 individuals in 2023.
- ❖ In 2015, there were an estimated 523 lions in the Gir Forest, but this number increased to 674 in 2020.
- ❖ As per IUCN Red list, Asiatic Lion is Endangered and African Lion is Vulnerable.

World Steelpan Day 2024 - August 11

- ❖ This day presents a chance to set ambitious goals for expanding the steelpan worldwide while honouring its Caribbean heritage.

- ❖ Steelpan is an extraordinary musical creation that emerged from the heart of Trinidad and Tobago.
- ❖ The theme of 2024 is “From Roots to Recognition: Steelpan’s Journey to Global Acclaim”.



ICoAS Foundation Day 2024 - August 09

- ❖ The Indian Cost Accounts Service (ICoAS) celebrated its Foundation Day with the theme ‘ICoAS @ Viksit Bharat’.
- ❖ T. V. Somanathan has released an e-Book titled ‘Indian Cost Accounts Service: An Overview’, detailing ICoAS achievements.

