



WEEKLY CURRENT AFFAIRS

FEBRUARY, 2023

Week-2

8-14 Feb., 2023

★★ Useful for ★★

**CSE, ESE, PSUs, State Services Exams,
SSC and Banking Exams**

8th FEBRUARY, 2023

K.G. Balakrishnan Commission

- **Context:** Recently, the Ministry of Social Justice and Empowerment stated that the government is fully committed to providing all the facilities to enable the Balakrishnan Commission to function effectively.

Key Highlights:

- The Union government has notified a Commission in 2022 under the former Chief Justice of India and former chairperson of the National Human Rights Commission (NHRC) K. G. Balakrishnan.
- The three-member Commission will also comprise retired IAS officer Dr. Ravindra Kumar Jain and University Grants Commission member Prof Sushma Yadav.
- It will submit its report within two years.
- To examine the issue of whether Scheduled Caste (SC) status can be accorded to Dalits who have over the years converted to religions other than Sikhism or Buddhism.
- The commission's inquiry will also look into the changes an SC person goes through after converting to another religion and its implications on the question of including them as SCs. These will include examining their traditions, customs, social and other forms of discrimination, and how and whether they have changed as a result of the conversion.
- The commission has also been empowered to examine any other related questions that it deemed appropriate, in consultation with and with the consent of the Central government.

Sovereign Green Bonds

- **Context:** Recently, Sovereign Green Bonds (SGBs), amounting to Rs. 16,000 crore, are proposed to be issued in the current financial year for mobilising resources for green infrastructure projects.

Key Highlights:

- The resources mobilised by issuing Sovereign Green Bonds is part of the government's overall market borrowings in year 2022-23.
- The proceeds will be deployed in public sector projects which help reduce the economy's carbon intensity.
- Green Bonds have emerged as an important financial instrument to deal with the threats of climate change.
- They offer investors a platform to engage in good practices while achieving at least similar, if not better, returns on their investment.

About Sovereign Green Bonds:

- Green bonds are bonds issued by any sovereign entity or corporates whose proceeds are utilised for funding environmentally sustainable projects such as renewable energy, clean transportation, energy efficiency, sustainable water and waste management etc.
- The only difference between Green Bonds and other ordinary government-issued bonds is that the funds raised from investors are only used to support initiatives that have a good influence on the environment.

Indonesia-Malaysia-Thailand Growth Triangle Joint Business Council

- **Context:** Recently, India has signed a Memorandum of Understanding (MoU) with Indonesia-Malaysia-Thailand Growth Triangle Joint Business Council (IMT-GT JBC), Malaysia to further promote the adoption of energy efficiency and sustainable practices in the region.

Key Highlights:

- Energy Efficiency Services (EESL), a joint venture of public sector undertakings under the Ministry of Power, signed a Memorandum of Understanding (MoU) with Indonesia-Malaysia-Thailand Growth Triangle Joint Business Council (IMT-GT JBC) Malaysia at India Energy Week (IEW).

- As part of this strategic partnership, EESL will provide technical advisory, project management support, contracting and implementation support to execute select energy efficiency programmes from its portfolio with proven track records of successful implementation.
- EESL will also collaborate with IMT-GT JBC Malaysia to identify opportunities for saving energy and lowering carbon emissions. Additionally, the IMT-GT JBC Malaysia will identify other new interventions to achieve its targets under Green City Action Plans 2022-2025 and assist EESL for various sector-led negotiations as well as provide support for the successful roll out of energy efficiency projects in Indonesia, Malaysia, and Thailand.

About India Energy Week 2023:

- The India Energy Week was inaugurated by PM Modi in Bengaluru, Karnataka. The event is to focus on energy security and India's energy transition goals.
- This includes net-zero emission target achievement by 2070.
- India Energy Week is gaining popularity all over the world because it is being launched during a global energy crisis period. The crisis has come up due to the Ukraine-Russian war. EU took several measures to counter Russia's actions in Ukraine. For instance, Russian oil imports to the EU countries were stopped.
- Also, the event is covering the "need of the moment" topics such as biofuels, energy supply chains, upstream and downstream investments, etc.

Global Climate Resilience Fund

- **Context:** The Clinton Global Initiative (CGI) along with the SEWA, and other organisations announced a 50-million-dollar Global Climate Resilience Fund for women.

Key Highlights:

- Global Climate Resilience Fund, in partnership with Self Employed Women's Association (SEWA),

will work to tackle challenges faced due to rising temperatures due to climate change

- The fund will empower women and communities to fight climate change and help provide new livelihood resources and education.
- It aims to provide solutions to the problems of women working under the sun, especially for workers in the informal sector like construction, waste recycling, plastic, farming, etc.
- The fund brings together a group of concerned people like the Clinton Global Initiative (CGI), Rockefeller Resilience Centre, Desai Foundation, the AI Gore Foundation, Council for Inclusive Capitalism, and the American India Foundation.
- The members do not have to pay insurance premiums and during extreme heat conditions when one does not work, this insurance will provide regular income.

Reverse Flipping

- **Context:** Economic Survey 2022-23 states that Indian start-up companies are looking at 'reverse flipping'.

Key Highlights:

- Economic Survey 2022-23 has suggested measures like simplifying employee stock option plan (ESOP) taxation, and easier corporate laws like in the US and Singapore to accelerate reverse-flipping among startups, namely moving domicile back to India
- The survey suggested simplifying the process for grant of 'Inter-Ministerial Board' (IMB) certification for startups, and facilitating improved collaboration and partnerships with established private entities to develop best practices and state-of-the-art startup mentorship platforms.
- The survey also talked about exploring the incubation and funding landscape for startups in emerging fields like social innovation and impact investment. Elaborating on the reason why startups chose to set up headquarters overseas (aka flipping).

- Flipping happens at the early stage of the startups, driven by commercial, taxation and personal preferences of founders and investors. Some companies decide to 'flip' because the major market of their product is offshore. Sometimes, investor preferences like access to incubators drive the companies to 'flip' as they insist on a particular domicile."

About Flipping and Reverse-flipping:

- Flipping is the process of transferring entire ownership of an Indian company to an overseas entity.
- It is generally accompanied by a transfer of all intellectual property and data owned by an Indian company.
- Reverse Flipping is the process of shifting the domicile of those companies back to India who flipped earlier.
- Companies reverse flip because of easy access to capital from private equity and venture capital, changes in rules regarding round-tripping, and the growing maturity of India's capital market.

9th FEBRUARY, 2023

Digital Payments Utsav

- **Context:** Recently, Union Minister for Electronics and Information Technology launched the 'Digital Payments Utsav' to promote Digital Payments across country.

Key Highlights:

- A comprehensive month-long campaign "Digital Payments Utsav" has been planned for the promotion of Digital Payments across the country, with particular focus on G-20 Digital Economy Working Group event cities, namely Lucknow, Hyderabad, Pune and Bengaluru.
- The event have the release of a G-20 co-branded QR code and a Coffee Table Book showcasing India's journey to global leadership in Digital Payments and digital inclusion.

- It also witnessed the flagging off of Digital Payment SandeshYatra with the aim to make citizens aware of various digital payments solutions and sensitise them about the security and safety of digital payments.
- DigiDhan awards for top-performing banks in the digital payments space also presented in the event.

RBI Monetary Policy Statement

- **Context:** Recently, the Reserve Bank of India settles for a 25 basis points (bps) repo rate hike in its monetary policy committee meeting.

Key Highlights:

- The Reserve Bank of India hiked its key repo rate by 25 basis points (bps) saying core inflation remained high.
- The central bank said that its policy stance remains focused on the withdrawal of accommodation. In its December monetary policy review, the central bank had raised the key benchmark interest rate by 35 basis points (bps). Since May last year, the Reserve Bank has increased the short-term lending rate by 250 basis points, to contain inflation.
- The Centre has tasked the RBI to ensure retail inflation remains at 4 per cent with a margin of 2 per cent. The central bank had failed to keep the inflation rate below 6 per cent for three consecutive quarters from January 2022.
- Core inflation remains sticky and larger global central banks continue to raise rates and hence the RBI stance as well as the interest rate move may help break core inflation persistence and that in turn will strengthen the medium-term growth prospects of the Indian economy.

Voice Deepfakes

- **Context:** Recently, people used "speech synthesis" and "voice cloning" service provider, ElevenLabs, to make voice deepfakes of celebrities like Emma Watson, Joe Rogan, and Ben Shapiro. Those deepfake audios made racist, abusive, and violent comments.

key Highlights:

- Deepfakes is the process of mimicking the voice of a person. Talking in their tone and style; like a mimicry. However, here the mimicry is done using the software. Therefore, the deep fake is the process of mimicking a person's voice using an online tool.
- People use AI, high-end computers with powerful graphics cards and cloud computing power to generate such voice clones or synthetic voices.
- Besides specialised tools and software, generating deepfakes needs training data to be fed to AI models. This data is often original recordings of the target person's voice.
- AI can use this data to render an authentic-sounding voice, which can then be used to say anything.
- Research labs use watermarks and blockchain technologies to detect deepfake technology
- Programmes like Deeprtrace are helping to provide protection. Deeprtrace uses a combination of antivirus and spam filters that monitor incoming media and quarantine suspicious content.
- Multifactor authentication (MFA) and anti-fraud solutions can also reduce deepfake risks.
- Researchers have developed a technique to measure acoustic and fluid dynamic differences between original voice samples of humans and those generated synthetically by computers.
- Call centres can also take steps to mitigate the threat from voice deepfakes. Callback functions can end suspicious calls and request an outbound call to the account owner for direct confirmation.
- However, cybersecurity tools have yet to create foolproof ways to detect audio deepfakes as detecting them needs highly advanced technologies, software, and hardware to break down speech patterns, background noise, and other elements.

10th FEBRUARY, 2023

Electric 2Ws and 3Ws Transition

- **Context:** The Union Budget 2023-24 gave the EV industry a boost by announcing the removal

of customs duties on capital goods used for manufacturing lithium cells used in Electric vehicles

Key Highlights:

- Electric two-wheelers and three-wheelers (including e-rickshaws) accounted for 92% of EVs registered in the country in 2022. Despite clear economic gains and the availability of EV models, e-2Wheeler(e-2Ws) and e-3Wheeler(e-3Ws) are still not being adopted at the desired pace.
- Only 4.5% of three-wheelers registered last year were electric. Similarly, e-2Ws made up just 3.9% of total two-wheelers sales last year.
- Advantages of the adoption of electric 2Ws and 3Ws Analysis done by the Council on Energy, Environment and Water (CEEW) shows the total cost of owning an electric three-wheeler (e-3W) is 13-46% lower than that of owning similar vehicles using petrol, diesel and compressed natural gas. When drivers switch to electric, a 30% increase in daily savings is enough to pay back an e-3W loan.
- Challenges faced in the adoption of electric 2Ws and 3Ws transition is that slow uptake can be attributed to low awareness, lack of trust in EV performance, high finance cost, poor visibility and poor access to charging infrastructure.

Ways to promote the electric 2Ws and 3Ws transition:

- **Setting up EV credit guarantee trust funds to de-risk financiers:** Most 2W delivery riders and 3W drivers rely on high-interest loans from informal markets. MSMEs, which face a similar challenge, have benefited from credit guarantee funds. Hence, it should be extended to commercial EV segment as well.
- **Make chargers easily accessible:** Auto-rickshaws spend their operational and non-operational idle times at specific parking locations with high footfall. Similarly, 2W delivery riders spend their idle time near pick-up hubs and restaurants. Hence, the charging infrastructure should be strategically developed for them.

- **Incentivize battery swapping ecosystems:** Time loss is crucial for commercial EVs. So, India should promote interoperability among heterogeneous fleets within the same battery-swapping ecosystems.
- **Allocate higher funds to improve awareness:** Swachh Bharat Mission-like awareness is required to improve awareness of FAME scheme.
- **India should double its electric 2Ws and 3Ws transition** to maximize its benefits for the environment, people's livelihoods and the Indian economy. With this, India has an opportunity to lead the efforts of other Asian emerging economies to chart their inclusive energy-transition strategies.

Union Budget 2023-24: Disinvestment Target

- **Context:** In the Union Budget for 2023-24, the government has set a disinvestment target of 51,000 crore, down nearly 21% from the budget estimate for the current year and just 1,000 crores more than the revised estimate
- The government may disinvest in order to reduce the fiscal burden or bridge the revenue shortfall for that year, finance the fiscal deficit, invest in the economy and development or social sector programmes, reduce government debt, encourage private ownership of assets and trading in the open market.
- If disinvestment is successful, it also means that the government does not have to fund the losses of a loss-making unit anymore.
- Different Central Governments over the last three decades have been able to meet annual disinvestment targets only six times.
- Since this current government came to power in 2014, it has met the disinvestment target twice: 2017-18 and 2018-19.
- The pandemic-induced uncertainty, the geopolitical conflict, and the associated risks have posed challenges before the plans and prospects of the government's disinvestment transactions over the last three years.
- Nevertheless, the government has reaffirmed its commitment towards privatization and strategic disinvestment of Public Sector Enterprises by implementing the new Public Sector Enterprise (PSE) Policy and Asset Monetization Strategy.

Key Highlights:

- This is the lowest disinvestment target in seven years. Moreover, the Centre has also not met the disinvestment target for 2022-23 so far.
- Disinvestment or divestment is when the government sells its assets or a subsidiary, such as a Central or State public sector enterprise.
- Minority disinvestment, majority disinvestment, and complete privatisation are the three main approaches to disinvestment.
- In case of minority disinvestment, the government retains a majority in the company, typically greater than 51%, thus ensuring management control. In the case of majority divestment, the government hands over control to the acquiring entity but retains some stake whereas in complete privatisation, 100% control of the company is passed on to the buyer.
- The Union Finance Ministry has a separate department for undertaking disinvestment-related procedures called the Department of Investment and Public Asset Management (DIPAM).

Mission Antyodaya Survey, 2022-23

- **Context:** Recently, Rural Development Ministry launches Mission Antyodaya Survey to shed light on India's rural economy.

Key Highlights:

- The Mission will ensure effective utilization of resources through convergence of various government schemes with a focused micro plan for sustainable livelihood for each marginalized household.
- Mission Antyodaya Survey 2022-23 Survey will be conducted in all 2,69,253-gram panchayats and equivalent, whose profile has been created on e-Gram Swaraj.

- The survey aims to lend support to the process of participatory planning for the Gram Panchayat Development Plan which will improve service delivery, enhance citizenship and improve governance at the local level and this survey will be the lifeline of country's development.
- The areas covered in the survey include fisheries, agriculture, fuel and fodder, good governance, roads, communication, etc. The questionnaires are to be prepared in 13 languages.
- Since these are cooperative bodies, individual farmers are members of the PACS and office-bearers are elected from within them. A village can have multiple PACS.
- A report published by the Reserve Bank of India in 2022 put the number of PACS at 1.02 lakh.
- PACS are involved in short-term lending — or what is known as crop loan. At the start of the cropping cycle, farmers avail credit to finance their requirement of seeds, fertilizers etc.

About Mission Antyodaya

- It was launched during the budget 2017-18. The main objective of the mission is to bring optimum use of natural resources in rural areas.
- The purpose is to aid the panchayats in creating their development plan. Apart from these objectives, the mission also has to fulfil the objective of conducting the annual survey. This is done to monitor the development processes. With the report from the survey, the mission will plan and improve its service delivery.
- The mission also encourages the gram panchayats to develop partnerships with institutions and organizations to help them in their development. Of all the industries, the food processing sector has a good chance to build partnerships with the gram panchayats.
- Banks extend this credit at 7% interest, of which 3% is subsidized by the Centre and 2% by the state government. Effectively, farmers avail the crop loans at 2% interest only.
- The attraction of the PACS lies in the last-mile connectivity they offer. For farmers, timely access to capital is necessary at the start of their agricultural activities. PACS have the capacity to extend credit with minimal paperwork within a short time.
- Challenges related to PACS: Since PACS are cooperative bodies, political compulsions often trump financial discipline and the recovery of loans is hit. Chairpersons of PACS participate in electing the office-bearers of DCCBs. Political affiliations are important here as well.

Primary Agricultural Credit Societies

- **Context:** The Union Budget has announced Rs 2,516 crore for computerisation of Primary Agricultural Credit Societies (PACS) over the next five years.

Key Highlights:

- PACS are village-level cooperative credit societies that serve as the last link in a three-tier cooperative credit structure headed by the State Cooperative Banks (SCB) at the state level.
- Credit from the SCBs is transferred to the district cooperative central banks, or DCCBs, that operate at the district level. The DCCBs work with PACS, which deal directly with farmers.

Immuno-contraceptive Measures to reduce Vermin populations

- **Context:** The Wildlife Institute of India (WII) is working to develop immuno-contraceptive measures for population management of Vermins and other species that have become problematic for humans in many parts of the country.

Key Highlights:

- The Wildlife (Protection) Act, 1972 states that the central government can declare any wild animal other than those specified in Schedule I and Part II of Schedule II to be vermin. The centre can even declare vermin for any period/in any area as may be specified.

- The Union Ministry of Environment, Forests and Climate Change (MoEF&CC) approved the 10-year research project for developing immuno-contraception in 2016.
- Under the project, the Wildlife Institute of India (WII) is studying immuno-contraceptive measures for population management of four species namely elephant, wild pig, Rhesus macaque and Nilgai.
- These measures will be able to reduce reproduction in the species by making the female sterile. This will be done by injecting a vaccine made from a hormone derived from the ovary lining of pigs.
- The act does not define the word Vermin. But the 62nd section of the Wildlife Protection Act grants the central government the power to declare any wild animal as vermin.
- Being declared as vermin deprives these animals of protection, thereby allowing for its hunting without any consequences.
- However, wild animal species which are placed in Schedule I and Schedule II of the Wildlife Protection Act, 1972 cannot be declared as Vermin.

11th FEBRUARY, 2023

About Vermins:

- Vermins are basically a problematic animal or a nuisance creature because they threaten humans, crops, livestock or property.
- The Vermin category of the Wildlife Protection Act (WLPA), 1972 is a colonial legacy which has minimal scientific basis.
- British legislation was the first to mandate the extermination of vermin. For instance, the Tudor Vermin Acts allowed for the eradication of nuisance animals or agricultural pests.
- Then the British Raj brought to India the ideas of desirable animals (suitable for hunting and subsequent consumption being considered game) and problematic animals (considered vermin). These very ideas were then used to establish British colonial control over the ecology of India and its people.

Vermin Category under WLPA Act, 1972:

- The WLPA, 1972 currently has six schedules that assign varying degrees of protection to animals and plants.
- Under Schedule I and II of the Act, for instance, animals and birds such as tigers and elephants are offered the highest protection.
- Schedule-V lists species classified as 'vermin', such as common crows, fruit bats, rats and mice, which may be hunted freely.

Indo-French Strategic Partnership

- **Context:** India and France recently celebrated the 25th anniversary of the signing of the Indo-French Strategic Partnership.

Key Highlights:

- The Indo-French Strategic Partnership has continued to gain momentum over shared values and strategic autonomy.
- France was among the first countries with which India signed a civil nuclear deal.
- France has emerged as a key trading partner of India with annual trade of \$12.42 billion in 2021-22
- France is the 11th largest foreign investor in India with a cumulative investment of \$10.31 billion in past two decades, which represents 1.70% of the total foreign direct investment inflows into India
- France has emerged as a key defence partner for India, becoming the second largest defence supplier in 2017- 2021. France is a major strategic partner for India with crucial defence deals and increased military to military engagement
- New Delhi and Paris, as part of their joint efforts on climate change, launched the International Solar Alliance in 2015
- Both countries share concerns over the rise of China and its aggressive behaviour, regionally and globally, and have committed to working together to ensure that there is no imbalance in the Indo-Pacific.

- There is a broad understanding of each other's position and resolve to coordinate to find a solution when they find themselves in opposite camps for example Russia-Ukraine crisis

Global Quality Infrastructure Index (GQII)

- **Context:** India's national accreditation system under the Quality Council of India (QCI) has been ranked 5th in the world in the recent Global Quality Infrastructure Index (GQII) 2021.

Key Highlights:

- The GQII ranks the 184 economies in the world on the basis of quality infrastructure (QI).
- The GQII is a database and ranking that allows interested persons to compare the quality infrastructure of different countries worldwide.
- The GQII program is an initiative of the independent consulting firms Mesopartner and Analytical to research and disseminate data on Quality Infrastructure.
- Quality Infrastructure means the international system of metrology, standardization, accreditation and quality-related services (testing, calibration, inspection, verification, training and awareness building).
- It creates confidence in international trade and contributes to the protection of consumers and the environment.
- GQII rankings are published and presented post-facto for each year based on the data collected till the end of that year.
- The 2021 rankings are based on data till the end of December 2021, collected and analyzed through 2022.
- India's overall QI system ranking continues to be in the Top 10 at the 10th position, with the standardization system (under BIS) at 9th and the metrology system (under NPL-CSIR) at 21st position in the world.

QR code-based Coin Vending Machine (QCVM)

- **Context:** In the latest Reserve Bank of India MPC meeting, RBI Governor Shaktikanta Das, announced QR code-based coin vending machines in 12 cities soon. This will enhance the ease of access to coins, and distribution of coins using machines.

Key Highlights:

- The QCVM is a cashless coin dispensation machine which would dispense coins against a debit to the customer's bank account using Unified Payments Interface (UPI). The QCVM would eliminate the need for physical tendering of banknotes and their authentication.
- Customers will also have the option to withdraw coins in required quantity and denominations in QCVMs, The pilot project is planned to be initially rolled out at 19 locations in 12 cities across the country.
- These vending machines are intended to be installed at public places such as railway stations, shopping malls, marketplaces to enhance ease and accessibility.

12th FEBRUARY, 2023

Trade Receivables Discounting System (TReDS)

- **Context:** The Reserve Bank of India recently announced that it will expand the TReDS platform.

Key Highlights:

- This is being done to increase insurance facilities in the country. RBI aims to add the factoring businesses as financiers to the TReDs. Under the TReDs businesses, financial companies or government organizations can provide financial support to the MSMEs.

- According to experts wider participation by more entities can keep the receivable discounting pricing under check as the volume on these platforms increases. Also, flexibility to allow re-discounting by existing holders of such discounted receivables will aid liquidity of participants.
- The expansion of the scope of TReDS platform serves to enhance the formalization of the lending eco-system for MSMEs

About Trade Receivables Discounting System (TReDS):

- The TReDS is Trade Receivables Discounting System. It facilitates finances for MSMEs. The major drawback of the MSME platform is that they are unable to convert the trade receivables into liquid funds. The TReDS mainly addresses this issue. Trade receivable is the amount that the buyer or the customer owes to a company or organization.
- TReDS is a payment system authorised under the Payment and Settlement Systems (PSS) Act, 2007.

Lithium Reserve Discovery in Jammu and Kashmir

- **Context:** The Geological Survey of India (GSI) has found lithium resources in Jammu and Kashmir for the first time.

Key Highlights:

- The Geological Survey of India (GSI) has established “inferred” lithium resources of 5.9 million tonnes in Salal-Haimana area of Reasi District of Jammu and Kashmir.
- State governments received 51 mineral parcels, including lithium and gold.
- Non-ferrous metal lithium is one of the essential elements of EV batteries
- The current government's focus EV's are expected to be nearly three-fourth of Indian two-wheelers by 2030, and all new cars are expected to be EVs. The

majority of them will have to be powered by lithium-based battery packs in the near term.

- Technologies such as lithium-ion batteries, hydrogen fuel cells are likely to play a key role in India's plan to reduce its carbon footprint by 33-35% from its 2005 levels by 2030 and to be carbon neutral by 2070
- According to the Central Electricity Authority, the country will need 27 GW of grid-scale energy storage systems by 2030. This will require large amounts of lithium.

About Lithium:

- Lithium is a chemical element with the symbol Li and atomic number 3. It is a soft, silvery-white alkali metal.
- Under standard conditions, it is the least dense metal and the least dense solid element.
- Like all alkali metals, lithium is highly reactive and flammable, and must be stored in vacuum, inert atmosphere, or inert liquid such as purified kerosene or mineral oil.
- In India, there is some potential to recover lithium from brines of Sambhar and Pachpadra areas in Rajasthan, and Rann of Kutch, Gujarat.
- The major mica belts located in Rajasthan, Bihar and Andhra Pradesh and the pegmatite belts in Odisha, Chhattisgarh, alongside rock mining being undertaken at Mandya, Karnataka, are other potential geological domains of the country.

Earthquake in Turkey and Syria

- **Context:** Three earthquakes with magnitudes of 7.8, 7.6, and 6.0 on the Richter scale have caused widespread devastation in Turkey and Syria, and their tremors were felt as far away as Cyprus (456 km), Lebanon (874 km), Israel (1,381 km), and Egypt (1,411 km)

Key Highlights:

- At least 40 aftershocks followed the first quake, with some of magnitude as high as 6.7. Two more earthquakes of 7.6 and 6.0 magnitude struck the region nine hours later.

- This is the strongest earthquake to shake the region in more than 100 years and has killed at least 3,800 people across Turkey and Syria in first two days.
- More than 2,000 people are feared injured, and several remain trapped under rubble. Turkey has announced a Level 4 alert calling for international aid; U.S., European Union, Russia, India and Azerbaijan have reportedly dispatched aid.
- India is providing humanitarian aid to Turkey under "Operation Dost".

Cause of earthquake in Turkey:

- Caused by strike-slip fault.
- The Earth's crust is made up of separate bits, called plates, that nestle alongside each other.
- These plates often try to move but are prevented by the friction of rubbing up against an adjoining one. But sometimes the pressure builds until one plate suddenly jerks across, causing the surface to move.
- In Turkey's case, it was the Arabian plate moving northwards and grinding against the Anatolian plate.
- Friction from the plates has been responsible for very damaging earthquakes in the past.
- For instance, in 1822 it caused an earthquake registering 7.4 in magnitude with around 7,000 deaths.
- Seismic activity in the region.

13th FEBRUARY, 2023

CAR T-cell Therapy

- **Context:** Recently, Oncologists explain the importance of CAR T-cell technology in curing people with leukemia and lymphomas.

Key Highlights:

- Leukaemia is a type of cancer that affects the blood and bone marrow, while lymphoma is a type of cancer that starts in the cells of the lymphatic system, which is part of the immune system.

- CAR T-cell therapy is a quantum leap in sophistication in treating these cancers and uses the patient's own cells, which are modified in the lab to attack tumours.
- Although the world's first clinical trial was published a decade ago, the first indigenously developed therapy was done in India in 2021.
- At present, the cost of treatment is high, over \$1 million in the US, with trials underway in India for indigenously manufactured CAR T-cells at a lower cost.
- As per U.S.-based experts, India is expected to face a 'tsunami' of chronic diseases like cancer.

About Chimeric Antigen Receptor (CAR)-T Cell Therapy:

- CAR-T cells are a patient's own immune cells that are genetically engineered in the laboratory to fight cancer.
- CAR-T cell is a prospective therapy that has ushered in a new era of curing refractory and stubborn cancers.
- CAR T cell therapy is used as third or second-line treatment for patients of specific types of cancers of blood and lymph nodes.
- T-cell receptor is widely used in developed nations for immunotherapy during cancer treatment.

Gender Budgeting

- **Context:** Recently, Budget 2023-24 sees marginal rise in allocation for Women and Child Development.

Key Highlights:

- The allocation under the Gender Budget rose from 1,71,006.47 crore in 2022-23 to 2,23,219.75 crore in 2023-24 which is an increase by 23% compared to 2022-23.
- The gender component accounted for 4.9% of the entire Budget, compared to 4.23% in 2022-23.
- The allocation for the Union Ministry for Women and Child Development saw a small increase of 1%.

- Around 90% of gender budgeting is concentrated in five ministries: Rural Development, Women and Child Development, Agriculture, Health and Family Welfare, and Education.
- Part A of the Gender Budget, which counts allocation for schemes exclusively for women, saw a 70% increase from last year.

About Gender Budgeting:

- Gender budgeting is defined by the Ministry of Women and Child Development (MoWCD) as a tool to achieve gender mainstreaming and ensure benefits of development reach women as much as men.
- The government publishes a Gender Budget Statement (GBS) every year along with the Union Budget to review programmes from a gender perspective and present information on allocations for women.
- It is analysis of the budget through a gender lens rather than creating a separate budget for women.
- The goal is to examine the gender-specific impact of the budget and align it with gender commitments.
- Examples of programs that benefit women more than men include: Nal se Jal (piped water supply), Ujjwala Yojana (cooking fuel), and Swachh Bharat Abhiyan (toilet construction).

One Family One Identity Portal

- **Context:** The Uttar Pradesh government has launched the portal for the creation of 'Family ID – One Family One Identity'.

Key Highlights:

- To identify families as a unit for executing the "one job per family" idea, the UP government has developed the portal for the development of "Family ID – One Family One Identity".
- According to a state government, all such families that are not eligible for the National Food Security Scheme will be able to avail of the ID, while the ration

card ID of the families having it, will be considered as their family ID.

- A unique identity will be issued to each family under the One Family One Identity scheme, thereby establishing a live comprehensive database of family units of the state.
- The database will be helpful in better management of beneficiary schemes, timely targeting, transparent operation, giving 100 percent benefit of the scheme to eligible people, and simplification of government facilities for the general public.
- Based on the integrated database obtained through Parivar ID, families deprived of employment can be identified, and suitable employment opportunities made available to them on priority.
- At present, about 3.59 crore families and 14.92 crore people living in Uttar Pradesh are getting the benefit of the National Food Security Scheme

14th FEBRUARY, 2023

Millet International Initiative for Research and Awareness (MIIRA)

- **Context:** India plans to propose a global initiative called "MIIRA" or Millet International Initiative for Research and Awareness.

Key Highlights:

- "MIIRA" or Millet International Initiative for Research and Awareness will be aimed at coordinating millet research programmes at the international level.
- India's plan to launch MIIRA is in line with the United Nations declaring 2023 as the International Year of Millets.
- India will contribute the "seed money" while each G20 member will later have to contribute to its budget in the form of a membership fee.
- The Indian Institute of Millet Research in Hyderabad will be supported as the Center of Excellence for sharing best practices, research, and technologies at the international level.

- The Indian Institute of Millet Research in Hyderabad will be supported as the Center of Excellence for sharing best practices, research, and technologies at the international level.
- MIIRA's secretariat will be in Delhi.
- The Department of Agriculture and Farmers Welfare on the MyGov platform has launched various competitions to raise awareness of the benefits of millets.

Global Investors' Summit, 2023

- **Context:** PM Modi Inaugurated Global Investors Summit 2023 in Lucknow.

Key Highlights:

- Uttar Pradesh Global Investors Summit 2023 is one of the major summits of the Government of Uttar Pradesh. To accelerate the pace of development in Uttar Pradesh and gain investment, policy makers, industry leaders, business delegations, academicians, think tanks and leaders from all over the world are collectively invited to this platform to explore business opportunities.
- Several progressive economies such as the United States, the United Kingdom, Canada, Japan, South Korea, Singapore, Germany, the Netherlands and the United Arab Emirates have been 'partner countries' at the summit.
- During the three-day summit, a total of 18,643 Memorandum of Understanding (MoUs) for investment intents, worth Rs 33.50 lakh crore, were signed by UP government. This will provide employment to about 93 lakh, 82 thousand, 607 people.
- The state government has launched a new online system called 'NiveshSarathi' for the convenience of investors and monitoring the implementation of MoUs.

microLED Displays

- **Context:** Apple is reportedly shifting to microLED Display technology, which is considered as the next big transition in display technology.

Key Highlights:

- MicroLEDs are self-illuminating diodes that are brighter and provide better color reproduction than OLED display technology.
- Apple is currently working on implementing this new technology, starting with its future watch models in 2024 and gradually moving on to other devices including iPhones and Macs.
- Their energy consumption is less compared to normal LEDs.
- The micro LED uses Indium Gallium Nitride semiconductors. In micro LEDs, each pixel can be turned ON or turned OFF. This cannot be done with conventional LEDs. Therefore, you get perfect colour control and contrast with micro-LED displays.
- The life of micro LEDs is longer. They can emit light continuously for more than 100,000 hours. That is, non-stop use for 11 years.
- The LCD displays in the market today use LED as backing light and a liquid crystal layer to create the image. The image is created by blocking the light on the crystal wherever required. There are no such complications with micro LEDs. Each and every LED on the screen can be controlled. Therefore, the image resolution is high, response time is less and power consumption is less.

About microLED Display Technology

microLED, also known as micro-LED, mLED or μ LED is an emerging flat-panel display technology consisting of arrays of microscopic LEDs forming the individual pixel elements.

