

CURRENT AFFAIRS: JANUARY 2022

CORRUPTION PERCEPTION INDEX

- It was released by Transparency International.
- India ranked at 85th among 180 countries with a score of 40. (Ranked 86th last year).
- Report said while India's score has remained stagnant over past decade, some mechanisms that could help reign in corruption are weakening.
- Denmark, New Zealand and Finland have topped index jointly.
- Index ranks countries by their perceived levels of public sector corruption according to experts and business people.

o It uses a scale of 0 (highly corrupt) to 100 (very clean.)

ONLINE CAMPAIGNING

Due to the ongoing pandemic and associated health risks, recently EC put temporal restrictions on physical rallies for upcoming state elections while allowing virtual campaigns through social media platforms.

About online election campaigning

- Election campaigns are the means by which candidates and political parties prepare and present their ideas and positions on issues to the voters.
- Online campaign not only includes promoting political and electoral campaign material on social media platforms such as Twitter, Facebook and Instagram, it also includes reaching out to voters with audio message, phone calls, videos and LED screen-mounted vans from small town to remote villages.
- The preferred modes of election messaging include audio-video animation with text, and digital banner and posters for targeted assembly constituencies.



BENEFITS OF ONLINE CAMPAIGNING

Large Audience

 With billions of users on platforms like Facebook, Youtube etc., Social media has emerged as an important medium of election campaigns

Analytics

 Social media uses analytics software to give politicians an idea of the different demographics who they are engaging. This allows campaigns to spend money more efficiently to target voters.

Feedback/Engagement

- It has given people unprecedented access to information about elections and enabled them to express their opinions and promoting open discourse through direct communication between leaders and constituents.
- The internet is also a useful platform for political parties to present their agenda to the electorate and to mobilise a larger support base for their causes

Connect Beyond campaigning

• i.e. share information on everything from policy to personal life. The voters also get the option of direct interaction

COVID-19 related requirements

 Need for social distancing has required candidates to develop new and innovative campaigning methods now that conventional campaigning, involving rallies, public meetings are restricted

Benefit Political Newcomers

· By providing a level playing field and a wider reach.

ELECTRONIC VOTING MACHINES (EVMS)

About Electronic voting machine (EVM)

- EVM is a microcontroller-based portable instrument designed to modernise the election procedure of conducting elections.
- EVM consists of two Units a Control Unit and a Balloting Unit. These units are joined together by a Cable.

ACADEMY



- EVMs were first used in Parur Assembly Constituency of Kerala in the year 1982.
- In 1988, a new Section 61A was inserted in the Representation of the People Act, 1951 empowering ECI to use electronic voting machines.
- An EVM being used by ECI can record a maximum of 2,000 votes.
- EVMs can cater to a maximum of 64 candidates (including NOTA). There is provision for 16 candidates in one Balloting Unit.

About Voter Verifiable Paper Audit Trail (VVPAT)

- VVPAT is another independent machine attached to the EVM which helps the voter verify the vote.
- After casting the vote, a slip is printed which contains the serial number, name, and symbol of the candidate and is visible through a window for seven seconds.
- Post this, the printed slip automatically falls in the sealed drop box of the VVPAT.

Concerns raised against VVPAT

- Reports suggest that VVPATs are vulnerable to malfunction when subjected to extreme weather conditions.
- Also as VVPAT is a simple processor, a memory and a printer unit, it is prone to hacking.
- Response time for electors to verify his/her vote is less.

LOCAL RESERVATION IN PRIVATE SECTOR

The Haryana government has challenged in Supreme Court, the order by the Punjab & Haryana High Court, to halt 75% quota in private jobs for locals.

- The Haryana State Employment of Local Candidates Act, 2020, came into force on January 15, 2022.
- It provides for 75% reservation to local youngsters in private sector jobs that offered a monthly salary of less than ₹30,000. It covers private companies, societies, trusts and partnership firms.



• Haryana is not the first state in India to push for such a move. Others like Maharashtra, Andhra Pradesh, Karnataka and Madhya Pradesh have already tried to reserve private jobs for locals. But, all of them have run into hurdles.

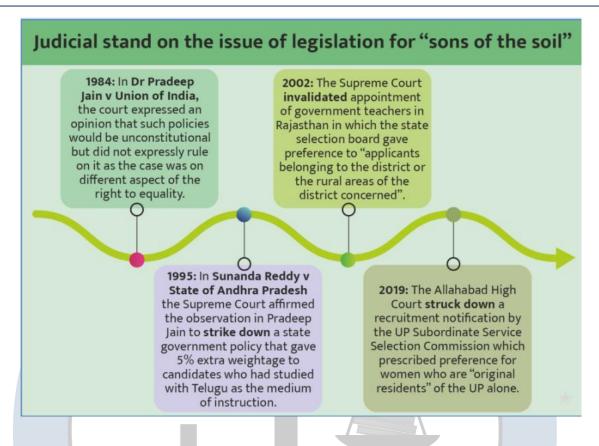
Related information on the issue of legislation for "sons of the soil"

The Madhya Pradesh government in 2020 reserved all government jobs for "children of the state". This raised questions relating to the fundamental right to equality.

- Constitutional provisions on the issue of legislation for "sons of the soil"
- o **Article 16**: Guarantees equal treatment under law in matters of public employment & prohibits the state from discriminating on grounds of place of birth or residence.
- o **Article 16(2)**: "No citizen shall, on grounds only of religion, race, caste, sex, descent, place of birth, residence or any of them, be ineligible for, or discriminated against in respect or, any employment or office under the State".
 - The provision is supplemented by the other clauses in the Constitution that guarantee equality.
- o **Article 16 (3)**: It provides an exception by saying that Parliament may make a law "prescribing" a requirement of residence for jobs in a particular state. This power vests solely in the Parliament, not state legislatures.
- o Why does the Constitution prohibit reservation based on domicile?

"LAW AC

• As India has common citizenship, which gives citizens the liberty to move around freely in any part of the country, the requirement of a place of birth or residence cannot be qualifications for granting public employment in any state.



HYDERABAD DECLARATION' ON EGOVERNANCE ADOPTED

- 24th National e-Governance conference unanimously adopted the Hyderabad declaration.
 - o Conference was jointly held by Ministry of Electronics & Information Technology (MeitY), Department of Administrative Reforms & Public Grievances, in collaboration with Telangana Government.
- e-Governance is use of Information and Communication Technology (ICT) at all level of Government to transform relations with citizens, businesses, and other arms of government.
 - o It has helped Government to enhance coverage, increase transparency, improve response to citizens and lower costs and has facilitated citizens to have better access, equity & social empowerment.



Some e-governance initiatives

- Bhoomi Project for (Karnataka): Online Delivery of Land Records.
- eSeva (Andhra Pradesh)
- Gyandoot (MP): Service delivery initiative.
- Lokvani (UP): For handling of grievances, land record maintenance and providing a mixture of essential services.
- FRIENDS (Fast, Reliable, Instant, Efficient Network for the Disbursement of Services) in Kerala.

SHERPA

- First BRICS Sherpas meeting of 2022 was held virtually.
- About Sherpas:
 - o A Sherpa is a personal representative of the leader of a member country at an international Summit such as the G8, G20 etc.
- ✓ The term is derived from the Nepalese Sherpa people, who serve as guides for mountaineers in the Himalayas.
 - o They coordinate the agenda, seek consensus, and participate in a series of pre-Summit consultations to help negotiate their leaders' positions.
 - o There is only one Sherpa per Summit for each member country.

HENLEY PASSPORT INDEX

- Index lists the world's passports according to the number of destinations their holders can access without a prior visa.
 - o It is released by Henley & Partners, a global leader in residence and citizenship planning.



- India's passport power has improved this quarter compared to 2021. It now ranks 83rd (90th rank last year).
 - o Japan and Singapore top the index

UNEMPLOYMENT IN INDIA

India's unemployment rate went up to 7.91 per cent in December 2021 from 6.3 per cent in 2018-2019 and 4.7 per cent in 2017-18.

- Unemployment is more in the urban areas as compared to the rural areas.
- Unemployment among women is higher than men, both in urban as well as rural areas.
- Further, of the women willing to seek work in urban areas, 92.1 per cent don't get any work. This count for rural women stands at 54.8 per cent.

About unemployment

- The term unemployment refers to a situation when a person who is actively searching for employment is unable to find work. Unemployment is considered to be a key measure of the health of the economy.
- The unemployment rate refers to the unemployed who are willing to work and are actively looking for a job expressed as a per cent of the labour force.
- Labour force consists of persons who are of 15 years of age or more and are either of the following two categories:
 - o are employed
 - o are unemployed and are willing to work and are actively looking for a job

Few Recent initiatives taken by the central government to support workers

• **Pradhan Mantri Garib Kalyan Yojana** (PMGKY): Under scheme, central government contributed both 12% employer's share and 12% employee's share under Employees Provident Fund (EPF).



- **Aatmanirbhar Bharat Rozgar Yojna** (ABRY) Scheme: Launched in October 2020 to incentivise employers for the creation of new employment along with social security benefits and restoration of loss of employment during the COVID-19 pandemic.
- Increase in unemployment benefits: The unemployment benefit under the Atal Beemit Vyakti Kalyan Yojana (launched in July 2018) was enhanced from 25% to 50% of the average earning for insured workers who have lost employment due to COVID-19.
- Prime Minister's Street Vendor's Aatma Nirbhar Nidhi (PM SVANidhi) scheme: As part of scheme, the central government provided an initial working capital of up to Rs 10,000 to street vendors. As of June 2021, Rs 2,130 crore disbursed to 21.57 lakh beneficiaries.
- Interlinking of databases: In Union budget 2022, it has been announced that portals such as Udyam, e-Shram, National Career Service (NCS) and Atmanirbhar Skilled Employee-Employer Mapping (ASEEM) will be interlinked to act as live, organic databases, providing G2C, B2C and B2B services.

DOMESTIC SYSTEMICALLY IMPORTANT BANKS (D-SIBS)

- SBI, ICICI Bank & HDFC Bank continue to remain D-SIB.
- D-SIB means that the bank is too big to fail. According to the RBI, some banks become systemically important due to their size, cross-jurisdictional activities, complexity and lack of substitute and interconnection.
 - o Banks whose assets exceed 2% of GDP are considered part of this group.
- As per the framework, from 2015, the central bank has to disclose names of banks designated as D-SIB.

AIRTEL PAYMENTS BANK AS A SCHEDULED BANK

- Airtel Payments Bank has been categorised as a scheduled bank by the Reserve Bank of India (RBI).
- All banks which are included in the Second Schedule to the RBI Act, 1934 are Scheduled Banks.



- O These banks comprise Scheduled Commercial Banks and Scheduled Co-operative Banks.
- Benefits of being a scheduled bank:
 - O Becomes eligible for debts/loans at the bank rate from the RBI
 - Automatically acquires the membership of clearing house
 - O Rediscount of first class exchange bills from the RBI

DEFENCE EXPORTS

Recently, Philippines signed a \$375 million deal for BrahMos supersonic cruise missiles.

About BrahMos

- BrahMos is a universal long range supersonic cruise missile system that can be launched from land, sea and air against surface and sea-based targets.
 - o BrahMos is a joint collaboration between India (Defence Research and Development Organisation (DRDO)) and Russia (NPO Mashinostoyenia).
 - o Name represents Brahmaputra and Moskva rivers.
- It is a two stage missile with a solid propellant booster engine as first stage and liquid ramjet as second stage.
 - o It operates at fire and forget principle.
- The range of the missile was originally capped at 290 km as per obligations of the Missile Technology Control Regime (MTCR).

INDIGENOUS AIRCRAFT CARRIER (IAC) VIKRANT

- IAC Vikrant is heading out for the next set of sea trials.
 - o India currently operates a solitary aircraft carrier, INS Vikramaditya.
- Vikrant, a STOBAR (short take-off but arrested landing) aircraft carrier, has an indigenous content of 76%.



o Designed by the Indian Navy's Directorate of Naval Design, Vikrant has been built at the state-owned Cochin Shipyard Limited.

• Apart from India, only US, UK, Russia, France and China have the capability to build aircraft carriers.

OPERATION SARD HAWA

- Border Security Force (BSF) launched operation 'Sard Hawa' at the international border of Rajasthan, under which vigil will be beefed-up to check the instances of infiltration due to the dense fog in the area.
- The operation will be carried out from January 23 to 28.
- BSF conducts "Operation Garam Hawa" in summer and "Operation Sard Hawa" in winter every year.
- BSF is a central armed police force (CAPF) that functions under the Union government. It was raised in 1965.
- BSF is deployed along the Pakistan and Bangladesh borders. It is also deployed in areas affected by Left Wing Extremism etc.

INDIA STATE OF FOREST REPORT (ISFR) 2021

The Ministry of Environment, Forests and Climate Change (MoEFCC) recently released the India State of Forest Report (ISFR) 2021.

About India State of Forest Report (ISFR)

- It is an assessment of India's forest and tree cover, published every two years by the Forest Survey of India under the Ministry of Environment, Forests and Climate Change.
- The first survey was published in 1987, and ISFR 2021 is the 17th report.
- Data is computed through wall-to-wall mapping of India's forest cover through remote sensing techniques.



Key Findings

Forest cover	• Total forest cover: 7,13,789 sq km (21.71% of the geographical area of India)			
	• Trends:			
	Total forest	Increase of 1,540 sq	COMPOSITION OF FOREST COVER IN INDIA	
	cover	km (0.22%)	Non-Forest	
	Very Dense	1 Increase of 501 sq km	76.87%	
	Forest (VDF)		$\times \wedge \times \wedge \times$	
	Moderately	Decrease of 1,582 sq		
	Dense Forest	km		
	(MDF) Open Forest (OF)	1 Increase of 2,621 sq		
	Open rolest (Or)	km	Scrub	
	Scrub	1 Increase of 242 sq km	1.42% OF OF 3.04%	
	Top 5 states in	Total Forest cover: Madhya	0.33%	
	Arunachal Pradesh, Chhattisgarh, Odisha, Maharashtra.			
	Top 5 states by percent of State's Geographic Area under Forest Cover: Mizoram (84.53%), Arunachal			
	Pradesh (79.33%), I	Meghalaya, Manipur, Nagaland.		
Tree cover		Total tree cover. 55,7 45 34 km (215275 or the geographical area)		
	State with Maximum Tree cover: Maharashtra.			
	• Trend: Increase	Trend: T Increase of 721 sq km (0.76%)		
Trees Outside	 TOF: 29.29 million l 	TOF: 29.29 million hectares (36.18% of the total forest and tree cover of India).		
Forests (TOF)	 States having large 	States having largest extent of TOF: Maharashtra followed by Odisha and Karnataka.		
	 States/UTs having maximum percentage of TOF: Lakshadweep, followed by Kerala and Goa. 			
Forest Cover	• Trends:			
w.r.t. Recorded	 Forest cover inside the RFA/GW: ↑ increase of 31 sq km 			
Forest Area (RFA)	 Forest cover outside the RFA/GW: 1 increase of 1,509 sq km 			

CHEETAH REINTRODUCTION PLAN

Recently, The Government of India has decided to reintroduce Cheetahs in National Parks over five years, under 'Action Plan for Introduction of Cheetah in India'.

- o Cheetah is the only large carnivore that got completely wiped out from India in 1952, mainly due to over-hunting and habitat loss.
- As per the action plan, a cohort of around 10-12 young African Cheetahs that are ideal for reintroduction will be sent from Namibia or South Africa to the grassland habitats that the Asiatic cheetahs occupied in the past as a founder stock during the first year.
- Amongst the 10 surveyed sites of the central Indian states, **Kuno Palpur National Park** (KNP) in Madhya Pradesh has been rated the highest. This is because of its suitable habitat and adequate prey base.



RED SANDERS

Recently, Red Sanders (Red Sandalwood) has fallen back into the 'Endangered' category in the International Union for Conservation of Nature's (IUCN) Red List.

About Red Sanders

- It is an Indian endemic tree species, with a restricted geographical range in the Eastern Ghats of India.
 - o It is endemic to a distinct tract of forests in Andhra Pradesh.

Significance of Red Sanders

- **Timber industry**: The timber of Red Sanders is highly demanded domestically and internationally, and especially in East Asian countries like China and Japan. Red Sandalwood timber is used for making furniture, woodcraft and musical instruments.
 - o The rare wavy grain variant is highly valued in Japan for its acoustic properties.
- **Medicinal value**: The wood at the center of the trunk (heartwood) is used as medicine. It is used for treating digestive tract problems, fluid retention, cough and for blood purification.

ZOJI LA PASS

- For the first time Border Roads Organisation (BRO) has kept the Zoji mountain pass open beyond 31st December.
- Zoji La Pass is a high mountain pass at an elevation of 3,528 m (11,575 ft) above the sea level, located in the Kargil district of Ladakh.
 - O It is the strategic link connecting Ladakh to Srinagar and the rest of India.
- To provide all-weather connectivity to Ladakh, the Zojila Tunnel is being constructed.
- Once completed, at 14.15 km, it will be India's longest road tunnel, and Asia's longest bidirectional tunnel.



MARITAL RAPE AND CONJUGAL RIGHTS

Recently, the Centre sought reasonable time from Delhi High Court to share government opinion on Marital Rape after consultation with all stakeholders.

About Marital Rape and Legal position in India

- Rape represents any non-consensual sexual intercourse or consent gained by using any kind of fear, fraud or under situation of unsoundness of mind, intoxication etc.
- Such sexual intercourse or Rape between non-spouses is illegal but Marital Rape, i.e., the act of having non-consensual sexual intercourse with one's own wife, is kept outside the definition of rape in many countries.
- In India also, under **Section 375** of the Indian Penal Code (IPC), non-consensual sexual intercourse or sexual acts by a man with his own wife, the wife not being under fifteen years of age, is kept as exception outside the definition of rape.
 - **Section 376A** criminalizes the rape of judicially separated wife.
- Also, the either spouse carries the right for 'Restitution of Conjugal Rights' under Divorce Act, 1869 (related to the divorce of persons belonging to the Christian religion), Special Marriage Act (SMA) of 1954 and Hindu Marriage Act (HMA) of 1955 etc.
- Although Section 3 of the Protection of Women from Domestic Violence, 2005 contradicts the exception provided by section 375 and considers any physical, sexual, verbal, and emotional abuse as Domestic Violence.

Conjugal Rights (Right to Stay Together)

Conjugal means relating to marriage. So, conjugal rights represent the 'rights relating to marriage or created by marriage'.

- It traces its roots in medieval ecclesiastical law of England when women lacked individual identity and were treated as husband's personal possession.
- Conjugal rights are part of Indian laws dealing with marriage, divorce etc., allowing a spouse to move to court for restitution of conjugal rights in case wife or husband withdraws from society without reasonable excuse.



- Though a gender-neutral law with utility in saving marriage, the restitution provisions were recently challenged in Supreme Court (**Ojaswa Pathak versus Union of India**) as:
 - o It goes against the individual dignity, bodily autonomy and privacy (in **Joseph Shine judgement, 2018- SC** held that State can't exercise authority in a person's private affairs).
- Decree of restitution of conjugal rights goes against individual right to autonomy and selfdetermination and a coercive act from state.
- It goes against individuality and empowers courts to attach the property if the restitution order isn't complied.

CENSUS FIRST PHASE, NATIONAL POPULATION REGISTER (NPR) DATA COLLECTION PUT OFF TILL SEPTEMBER 2022

- Exercise was scheduled to be held from April September, 2020 but was postponed indefinitely due to pandemic.
 - o Census involves a detailed questionnaire eliciting particulars of every person, including age, sex, birthplace, mother tongue, religion etc.
 - o NPR collects basic demographic data and biometric particulars.
- NPR is a Register of all usual residents of the country regardless of whether they are citizens or non-citizens of India.
 - o A "usual resident of the country" is one who has been residing in a local area for at least last 6 months or intends to stay in a particular location for next 6 months.
- It is prepared at local (village/ward of town), sub district, district, tate and national levels under provisions of **Citizenship Act 1955** and Citizenship (Registration of Citizens and Issue of National Identity Cards) Rules, 2003.

PADHE BHARAT

Launched by: Department of School Education & Literacy



- It is a 100 days reading campaign (starting from 1st January) to support and encourage students to read for joyful learning experience.
 - o It will focus on children studying in Balvatika to Grade 8.
 - o It aims to have participation of all stakeholders including children, teachers, parents, community, educational administrators etc.
- Campaign will also focus on Indian languages including mother tongue/local/regional languages.
 - o Also, 21st February which is celebrated as International Mother Tongue Day, has been integrated with this campaign.

GAGANYAAN

Recently, Indian Space Research Organisation (ISRO) plans to launch Gaganyaan before Independence Day in 2022.

About Gaganyaan

- The word 'Gaganyaan' is derived from Sanskrit, meaning 'sky-vehicle'.
- The Gaganyaan Programme envisages undertaking the demonstration of indigeneous capability to undertake human spaceflight to Low Earth Orbit (LEO).
- As part of this programme, two unmanned missions and one manned mission will be carried out.
 - o ISRO is planning to launch the first uncrewed mission under Gaganyaan in 2022, following which the second unmanned mission "Vyommitra" will carry a robot and this will then be followed by the manned mission.
- The Orbital module (OM) will be launched by a human-rated GSLV MK-III vehicle and will orbit the Earth with a velocity of about 7,800 metre/second.
- For the first crewed mission of Gaganyaan programme, astronaut trainees are selected, based on selection criterion jointly defined by ISRO and Indian air force which comprises of: flying experience, fitness, psychological and aeromedical evaluation.



OMISURE

- It is made in India kit to detect the omicron, recently got approval by Indian Council of Medical Research.
- It is developed by The Tata Medical and Diagnosticsthat can detect the Omicron in nasopharyngeal/oropharyngeal specimens during the RT-PCR tests.

HIGHEST MOTORABLE ROAD IN THE WORLD

- Several projects built by Border Roads Organisation, including a bridge on world's highest motorable road, were inaugurated recently.
- Road is in south Ladakh, connecting Chisumle and Demchok. It passes through Umling La pass, which is at a height of over 19,000 feet.
 - o It betters previous record of a road in Bolivia, which connects volcano Uturuncu.
- Demchok has been an India-China flashpoint. New road will make it easier to mobilise troops and equipment.
- It was built under Project Himank, a project to keep lines of communication open throughout the year (in Ladakh/Siachin sector)

VARIOUS AWARDS ANNOUNCED ON REPUBLIC DAY

- Padma Awards: Highest civilian awards in the country, instituted in 1954 and are awarded to citizens of India for their distinguished contribution in various fields of activity including education, arts, literature, science, acting, social service and public affairs.
 - o They comprise of three categories based on the scale of the awardee's achievement The highest being Padma Vibhushan, followed by Padma Bhushan, and Padma Shri.
- **Gallantry awards** Param Vir Chakra (Highest Military decoration), Mahavir Chakra, Vir Chakra, Ashoka Chakra, Kirti Chakra, Shaurya Chakra.



• **President's Police Medals** for meritorious service to law enforcement personnel in the country.

PRADHAN MANTRI RASHTRIYA BAL PURASKAR (PMRBP)

- It is awarded by Government of India to children between the ages of 5 and 18 to recognise their exceptional abilities and outstanding achievement.
- It is given in in six fields of innovation, scholastic achievements, sports, art and culture, social service and bravery.
- Each awardee of PMRBP is given a medal, a cash prize of Rs 1 Lakh and a certificate.
- Formerly known as the National Child Award for Exceptional Achievement, it is India's highest civilian honour for exceptional achievers under the age of 18.
- It has two categories Bal Shakti Puraskar and Bal Kalyan Puraskar.
- Award is administered by Ministry of Women and Child Development.

JALLIKATTU

- Jallikattu is a bull-taming sport of Tamil Nadu that has traditionally been part of the festival of Pongal.
- The festival is a celebration of nature, and thanksgiving for a bountiful harvest, of which cattle worship is part.
- There are references to Jallikattu in Sangam literature too. Also, a reference to bull taming is found in a seal discovered at Mohenjodaro, which is dated between 2,500 BC and 1,800 BC.

LIVING ROOT BRIDGES

- UNESCO Heritage tag is being sought for the bridge.
- Living root bridges are Ficus elastica-based suspension bridges within dense tropical rainforests of Meghalaya.



- o Ficus elastica a tree that grows abundantly in the subtropical terrain of Meghalaya.
- Ranging in span from 15 feet to 250 feet, these bridges are grown by indigenous Khasi tribes over a time period of 15 to 30 years, and last for several centuries

DARK GENOME

- Scientists investigating the DNA outside our genes (the 'dark genome) have discovered recently evolved regions that code for proteins associated with schizophrenia and bipolar disorder.
- Dark genome refers to 'DNA outside of the regions conventionally defined as genes'.
 - o They are genes/proteins for which there is minimal knowledge on biological function and, allied to this, limited tools for their analysis (such as antibodies).
 - o Thus, it adversely affects the precision medicine initiative.

VEER BAAL DIWAS

- PM announced 26th December as 'Veer Baal Diwas' to mark martyrdom of Sahibzada Zorawar Singh Ji and Fateh Singh Ji.
 - o While all four sons of Guru Gobind Singh Ji were martyred, date has been chosen as it was the day observed as the martyrdom day of Sahibzadas Zorawar Singh and Fateh Singh, who were killed at the tender age of six and nine in Sirhind by Mughal forces.

NETAJI SUBHASH CHANDRA BOSE

Recently, Netaji Subhas Chandra Bose 125th birth anniversary ('Parakram Diwas') was celebrated.

• On the occasion, a holographic statue of Netaji was unveiled at central Delhi's India Gate.



- It will later be replaced by a 28-feet high and six-feet wide granite statue of the freedom fighter.
- The statue is symbolic of exhorting citizens to build a new India before the 100th year of Independence in 2047.

SOLAR FARE CAUSES RADIOBLACKOUT OVER INDIAN OCEAN

- Recently, sun emitted a large solar flare that was observed by NASA's Solar Dynamics Observatory (SDO).
 - o SDO studies how Sun creates solar activity and drives space weather.
- Solar flares are a sudden explosion of energy caused by reorganizing of magnetic field lines near sunspots.
 - o Solar magnetic cycle that works in deep interior of Sun creates regions that rise to surface and appear like dark spots. These are sunspots.
 - o They appear dark because they are cooler than other parts of Sun's surface.
- In a solar flare, energy stored in sun's magnetic structures is converted into light and heat energy. This causes emission of high energy x-ray radiation and highly accelerated charged particles to leave the sun's surface.

INDIA'S FIRST OPEN ROCK MUSEUM

- It was inaugurated at campus of CSIR-National Geophysical Research Institute, Hyderabad.
- Museum displays around 35 different types of rocks gathered from different states with ages ranging from 3.3 billion years to around 55 million years.
- Also, on the occasion, Union Minister of State for Science & Technology also released the earthquake risk maps of Lucknow and Dehradun cities.



GROSS DOMESTIC PRODUCT (GDP) ESTIMATES

Recently, the National Statistical Office (NSO) released the first advance estimates of GDP for 2021-22 with GDP growth rate pegged at 9.2%.

- It uses the Benchmark indicator method i.e., extrapolating previous year estimates by using relevant indicators on performance of different sectors of economy.
- Key Estimates (Base year for Constant Prices- 2011-12):
 - o Real GDP is estimated to grow at 9.2% and Nominal GDP at 17.6%,
 - o Real GVA is estimated to grow at 8.6% and Nominal GVA at 17.4%.
- **Gross National Happiness** (GNH): Coined by the 4th king of Bhutan, Jigme Singye Wangchuck in the 1970's, GNH focuses on four pillars- good governance, sustainable socioeconomic development, cultural preservation and environmental conservation.
- **Human Development Index** (HDI): Launched in 1990 by the United Nations (developed by Mahbub ul Haq) to measure factors such as education, income, and health.
- Bare Necessities Index (BNI): Introduced by the Finance Ministry in 2020-21, it assesses the fulfilment of bare necessities of life such as housing, water sanitation, electricity etc.
- **Green GDP**: Also known as environmentally adjusted domestic product, it allows the cost of natural resource depletion and environmental degradation to be subtracted from GDP.
 - o **Gross Environment Product**: A component of Green GDP, it measures the ecosystem services or the benefits derived from natural resources and processes such as food, clean water etc.
- **Genuine Progress Indicator** (GPI): Used to measure the economic growth of a nation, GPI takes into account the GDP as well as its negative social and environmental costs such as crimes, resource depletion, etc.

