OFFICERS' PULSE

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COVERAGE.

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AT A GLANCE & IN DEPTH.

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Economy

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News @ a glance

POLITY

1) NITI Aayog Report

What's in the news?

 NITI Aayog has released its annual report recommending measures to tackle rising obesity in the population.

Key Highlights

- NITI Aayog in the report mentioned that the incidences of overweight and obesity are increasing among children, adolescents and women in India.
- According to the National Family Health Survey (NFHS-5) 2019-20, the percentage of obese women increased to 24 per cent from 20.6 per cent in 2015-16, while the percentage for men rose to 22.9 per cent from 18.4 per cent four years earlier.
- It recommended that India can take actions such as taxation of foods high on sugar, fat and salt and front-ofthe pack labelling to tackle rising obesity in the population.

Hyperloop Technology

- The government think-tank in its annual report also said that an expert committee has been constituted to study the technological and commercial viability of the hyperloop system.
 - Hyperloop is a technology proposed by inventor and businessman Elon Musk, who is behind the electric car company Tesla and the commercial space transport company SpaceX.
- The report said a blueprint will be prepared to develop indigenously built hyperloop technology.

2) PM GatiShakti

About the project

- Last year, Prime Minister Narendra Modi launched the "PM GatiShakti — National Master Plan" for infrastructure development aimed at boosting multimodal connectivity and driving down logistics costs.
- PM GatiShakti is a digital platform that connects 16 ministries including Roads and Highways, Railways, Shipping, Petroleum and Gas, Power, Telecom, Shipping, and Aviation- with a view to ensuring holistic planning and execution of infrastructure projects.
- The portal will offer 200 layers of geospatial data, including on existing infrastructure such as roads, highways, railways, and toll plazas, as well as geographic information about forests, rivers and district boundaries to aid in planning and obtaining clearances.
- The portal will also allow various government departments to track, in real time and at one centralised place, the progress of various projects, especially those with multi-sectoral and multi-regional impact.
- The objective is to ensure that each and every department now has visibility of each other's activities providing critical data while planning and execution of projects in a comprehensive manner.
- The GatiShakti platform aims to prevent such situations by addressing the issue of government departments working in silos.
- The government expects the platform to enable various government departments to synchronise their efforts into a multi-modal network. It will also offer satellite imagery for

monitoring of projects. It is also expected to help state governments give commitments to investors regarding timeframes for the creation of infrastructure.

How will the platform help bring down logistics costs?

- Studies estimate that logistics costs in India are about 13-14% of GDP as against about 7-8% of GDP in developed economies.
- High logistics costs impact cost structures within the economy, and also make it more expensive for exporters to ship merchandise to buyers.
- By incorporating infrastructure schemes under various ministries and state governments, and economic zones such as textile and pharmaceutical clusters and GatiShakti electronics parks, the platform aims to boost last-mile connectivity and bring down logistics costs with integrated planning and reducing implementation overlap.

Why in News?

- Prime Minister Narendra Modi urged State governments as well as private sector to adopt the Gati Shakti portal to plan infrastructure projects and develop special economic zones.
- More than 400 data layers are now available on the Gati Shakti portal which give information on not just the existing and proposed infrastructure projects but also on forest land and available industrial estate.
- The Unified Logistic Interface Platform (ULIP) will also integrate 24 digital systems of six ministries and will help in reducing logistics cost in the country which today stood at 13-14% of the GDP and was much higher than some of the developed countries.

3) Armed Forces Special Powers Act

About AFSPA

• Passed in 1958 for the North-East and in 1990 for Jammu & Kashmir, the

Armed Forces Special Powers Act (AFSPA) gives armed forces special powers to control "disturbed areas", which are designated by the government when it is of the opinion that a region is in such a disturbed or dangerous condition that the use of armed forces in aid of civil power is necessary.

- An area can be disturbed due to differences or disputes between members of different religious, racial, language or regional groups or castes or communities.
- The Central Government, or the Governor of the State or administrator of the Union Territory can declare the whole or part of the State or Union Territory as a disturbed area.
- Under its provisions, the armed forces have been empowered to open fire, enter and search without warrant, and arrest any person who has committed a cognisable offence, all while having immunity from being prosecuted.
- The law has been repealed where insurgencies have subsided, and when governments have gained confidence in managing the region using the police force.
- Critics both in India and abroad have criticised government agencies for acting with impunity under AFSPA.
 Manipuri activist Irom Sharmila had been on a 16-year hunger strike in protest against AFSPA. The Jeevan Reddy Committee formed in 2004 has recommended a complete repeal of the law.

Why in News?

- The **Assam government** extended the "Disturbed Area" status of the state under the Armed Forces (Special Powers) Act. The order will stay in effect unless otherwise withdrawn by the state government.
- The AFSPA was imposed in Assam in November 1990 and has been extended every six months since then after a review by the state government.

4) Operation Ganga

What's in the news?

- Over 3,700 Indians have returned on 17 special flights after fleeing Ukraine and reaching its neighbouring countries.
- As part of the government's 'Operation Ganga', 14 civilian flights mounted by Indian airlines brought back 3,142 people and three C-17 flights by the Indian Air Force brought back 630

- Indians from Romania, Hungary, Slovakia and Poland.
- About 9,364 Indians have been evacuated so far on 43 special flights, according to a statement from the Ministry of Civil Aviation. These include seven flights of C-17, which have also taken 9.7 tonnes of relief material.

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ENVIRONMENT

1) Second Part of IPCC's Sixth Assessment Report

What's the news?

- The latest report of the Intergovernmental Panel on Climate Change (IPCC) has warned of multiple climate change-induced disasters in the next two decades even if strong action is taken to reduce the emissions of greenhouse gas emissions.
- The latest warnings have come in the second part of IPCC's Sixth
 Assessment Report which talks about "Climate change impacts, risks and vulnerabilities, and adaptation options". The first part of the report, released in August last year was centered around the scientific basis of climate change.

What's new?

- The Assessment Reports, the first of which had come out in 1990, are the most comprehensive evaluations of the state of the earth's climate.
- The four subsequent assessment reports came out in 1995, 2001, 2007 and 2015 and have formed the basis of the global response to climate change.
- The latest report has, for the first time, made an assessment of regional and sectoral impacts of climate change.
- It has included risks to, and vulnerabilities of, mega-cities around the world. Eg: It has highlighted that Mumbai is at high risk of sea-level rise and flooding, while Ahmedabad faces serious danger of heat-wayes.
- Also for the first time, the IPCC report has looked at the health impacts of climate change.
- **Eg:** It has been found that climate change is increasing vector-borne and water-borne diseases such as malaria or dengue, particularly in sub-tropical regions of Asia.

Key Findings

- Human-induced climate change, including more frequent and intense extreme events, has caused widespread adverse impacts and related losses and damages to nature and people, beyond natural climate variability.
- The report has highlighted that while strong actions to reduce greenhouse gas emissions in the near term, in the next 20 years, would substantially reduce the threats, and the projected damages, they would not eliminate them all. If the temperature rise crossed the threshold of 1.5°C from pre-industrial times, then many changes could be irreversible.
- While progress in adaptation planning and implementation has been observed across all sectors and regions, generating multiple benefits, it was unevenly distributed with observed "adaptation gaps" as many initiatives prioritize immediate and near-term climate risk reduction which reduces the opportunity for transformational adaptation.
- **Global sea levels will likely rise** 44-76 cm this century if governments meet their current emission-cutting pledges.
- With faster emission cuts, the increase could be limited to 28-55 cm. But with higher emissions, and if ice sheets collapse more quickly than expected, sea levels could rise as much as 2 m this century and 5 m by 2150.
- Adaptation is essential to reduce harm, but if it is to be effective, it must go hand in hand with ambitious reductions in greenhouse gas emissions because with increased warming, the effectiveness of many adaptation options declines.

3 Major impacts of Climate Change stressed in the report

a. Accelerating climate crisis is increasing water-related diseases.

- b. Climate change will severely impact **food production and food security.**
- c. Droughts and heatwaves will trigger **biodiversity loss**, as well as human migration. **Regional Analysis**
 - According to one of several studies of the report, **Lucknow and Patna** are among the cities predicted to reach **wet-bulb temperatures** (a metric of humidity) of 35°C if emissions continued to rise, while Bhubaneswar, Chennai, Mumbai, Indore, and Ahmedabad are all identified as at risk of reaching wet-bulb temperatures of 32-34°C with continued emissions.
 - Overall, Assam, Meghalaya, Tripura, West Bengal, Bihar, Jharkhand, Odisha, Chhattisgarh, Uttar Pradesh, Haryana and Punjab will be the most severely affected, but if emissions continue to increase, all Indian States will have regions that experience wet-bulb 30°C or more by the end of the century.
 - Even the slightest change in climate will have a long-lasting impact on the Himalayan region due to its fragile ecology.
 - Eg: There would be a rapid increase in incidents like the Chamoli disaster and extreme weather events like heavy precipitation.

World Poverty to Rise

- Climate Experts have warned that Climate change and extreme weather are already hurting the world economy and if unchecked will plunge millions more into poverty while pushing up food prices and disrupting trade and labour markets.
- The report summarizes that Economic damages from climate change have been detected in climate-exposed sectors, with regional effects to agriculture, forestry, fishery, energy and tourism and through outdoor labour productivity.
- **Eg:** Under what it called a "high vulnerability-high warming scenario", it estimated that up to 183 million additional people would become undernourished in low-income countries due to climate change by 2050.

- The report comes amid rising world fuel prices and inflation that have prompted some politicians to resist efforts to promote cleaner energy sources, arguing that doing so will only add to the overall cost of living for the poorest.
- It stressed that Rising temperatures
 would make agricultural labour less
 productive, or prompt farm workers to
 shift to other sectors which would
 cause negative consequences such as
 reduced food production and higher
 food prices and in turn lead to
 increased poverty, economic
 inequalities and involuntary
 migration to cities.

Conclusion

- The report in particular highlighted that more investment was urgently needed to help the world deal with the growing impact of climate change, known as "adaptation" in climate finance jargon.
- Thus, to combat this surge of crises, developing countries like India will need to significantly scale up their adaptive capacity.

2) WHO's Pandemic Treaty

What is the Pandemic Treaty?

- In December 2021, the World Health Assembly agreed to start a global process to draft the pandemic treaty.
- The Health Assembly adopted a decision titled "The World Together" at its second special session since it was founded in 1948.
- Under the decision, the health organization established an intergovernmental negotiating body (INB) to draft and negotiate the contents of the pandemic treaty in compliance with Article 19 of the WHO Constitution.
- The pandemic treaty is expected to cover aspects like data sharing and genome sequencing of emerging viruses and equitable distribution of vaccines and drugs and related research throughout the world.
- Solutions to the COVID-19 pandemic have seen an inequitable distribution

- of vaccines so far, with poorer countries at the mercy of others to receive preventive medication as Most countries have followed the "me-first" approach which is not an effective way to deal with a global pandemic.
- While the EU wants the treaty to be legally binding, the U.S., Brazil and India have expressed reservations about the same. The legal nature of the treaty is yet to be defined.

What is Article 19 of the WHO Constitution?

- Article 19 of the WHO Constitution gives the World Health Assembly the authority to adopt conventions or agreements on matters of health.
- A two-third majority is needed to adopt such conventions or agreements.
- The WHO Framework Convention on Tobacco Control was set up under Article 19 and it came into force in 2005.

Need for Pandemic Treaty

- The need for an updated set of rules was felt after the COVID-19 pandemic exposed the shortcomings of global health systems.
- The COVID-19 pandemic has impacted the world with more than **437 million cases** being globally reported so far and more than 5.9 million people have lost their lives.
- In India, over 34 million cases have been reported so far and Death toll stands at over five lakh.

Why in news?

- Members of the World Health Organization (WHO) held the first round of negotiations towards the pandemic treaty on February 24, 2022.
- The meeting was aimed at agreeing on ways of working and timelines for a "convention, agreement or other international instrument" to prevent further pandemics and to improve the preparedness and response in case of its occurrence.
- The second meeting, where the members are expected to discuss the progress on a working draft, is scheduled to be held by August 1, 2022.

3) Kadinamkulam lake to become Biodiversity site

What's the news?

- The Kerala State Biodiversity Board has initiated steps to include Kadinamkulam lake in the list of biodiversity heritage sites in the State
- Steps have been initiated in association with the Biodiversity Management Committee of the Kadinamkulam grama panchayat to study the ecological profile as well as the flora and fauna in the region.
- The ecosystem, biodiversity and challenges involved in conservation of the inland water body will come under the ambit of the study.
- As of now, **India has 13 Biodiversity Heritage sites.**

What are Biodiversity Heritage Sites?

- Biodiversity Heritage Sites (BHS) are well defined areas that are unique, ecologically fragile ecosystems terrestrial, coastal and inland waters and, marine having rich biodiversity comprising of any one **or more** of the components such as: species richness, high endemism, presence of rare, endemic and threatened species, keystone species, species of evolutionary significance, wild ancestors of domestic/cultivated species or land races or their varieties, past pre-eminence of biological components represented by fossil beds and having cultural or aesthetic values.
- As per section 37 of Biodiversity Act, the State Governments are empowered to notify in the official gazette, in consultation with 'local bodies', areas of biodiversity importance as Biodiversity Heritage Sites.
- Under sub section (2) of Section 37 of the BD Act, the State Government in consultation with the Central Government may frame rules for the management and conservation of BHS.

Identification and Declaration of BHS

 State Biodiversity Boards (SBB) may invite suggestions (or consider those already coming from communities) for declaration of BHSs, through the **Biodiversity Management Committees (BMCs)** and other relevant community institutions.

4) Silicosis is killing workers in Jharkhand

What is Silicosis?

- Silicosis is a chronic respiratory ailment caused by inhaling silica dust over a long period of time.
- It is an incurable lung disease caused by inhalation of dust that contains free crystalline silica.

How is it caused?

- Silicosis develops when fragments of silica, smaller than 0.5 microns, are inhaled or ingested during silica mining or while working in factories that use silica.
- The particles get embedded in the alveoli and accumulate in the lungs and respiratory passages causing a thickening of the lungs.

Symptoms

- a. Shortness of breath,
- b. Tightness of chest
- c. Fever.
- d. Cyanosis (bluish skin).

Treatment

- There is **no specific treatment** available for curing Silicosis.
- The best way to prevent silicosis is to identify workplace activities that produce crystalline silica dust and then to eliminate or control the dust.

Why in News?

 According to the Occupational Safety & Health Association of Jharkhand (OSHAJ), over 10,000 people have died of silicosis in the last two decades, almost all of them belonging to tribal and backward communities.

News in detail

- Jharkhand, rich in more than 30 minerals such as coal, cobalt, graphite and silica, contributes significantly to the nation's economy.
- As for industrial silica, it is used in a wide array of industries, the main ones being glass foundries, construction, ceramics, and chemicals. Sports and leisure facilities also use silica, and it is a raw material for silicon metal.
- According to Carr, every worker in this sector is impacted by the disease, and anyone affected by it is almost certain to die. Despite this, the government lacks a mechanism to stop or mitigate the scourge of silicosis.
- In 2009, the Supreme Court issued an interim order directing the Ministry of Health and the Ministry of Labour and Employment to provide all necessary assistance to the NHRC for any silicosis-related action.
- According to the ruling, the NHRC could also investigate proven cases of silicosis and recommend emergency medical help.

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ECONOMY

1) SWIFT

What's in the news?

- The U.S., Europe and several other western nations have decided to exclude Russia from the Society for Worldwide Interbank Financial Telecommunication (SWIFT), an international network for banks to facilitate smooth money transactions globally.
- This could be the strongest economic sanction against Russia over its military moves in Ukraine, as it will potentially cut off the country from receiving international payments.

What is SWIFT?

- SWIFT is a messaging network used by banks and financial institutions globally for quick and faultless exchange of information pertaining to financial transactions.
- The Belgium-headquartered SWIFT connects more than 11,000 banking and securities organisations in over 200 countries and territories.
- Each participant on the platform is assigned a unique eight-digit SWIFT code or a bank identification code (BIC). If a person, say, in New York with a Citibank account, wants to send money to someone with an HSBC account in London, the payee would have to submit to his bank, the London-based beneficiary's account number along with the eight-digit SWIFT code of the latter's bank. Citi would then send a SWIFT message to HSBC. Once that is received and approved, the money would be credited to the required account.
- SWIFT is merely a platform that sends messages and does not hold any securities or money. It provides standardised and reliable communication to facilitate the transaction. While SWIFT does not actually move money, it operates as a middleman to verify information of transactions by providing secure financial messaging services.

What happens if one is excluded from SWIFT?

- If a country is excluded from the most participatory financial facilitating platform, its **foreign funding would take a hit, making it entirely reliant on domestic investors.** This is particularly troublesome when institutional investors are constantly seeking new markets in newer territories.
- Prior to this, only one country had been cut off from SWIFT — Iran. It resulted in it losing a third of its foreign trade.
- An alternative system would be cumbersome to build and even more difficult to integrate with an already expansive system. SWIFT, first used in 1973, went live in 1977 with 518 institutions from 22 countries, its website states. SWIFT itself had replaced the much slower and far less dynamic Telex.

How is the organisation governed?

- SWIFT claims to be neutral. Its shareholders, consisting of 3,500 firms across the globe, elect the **25-member** board, which is responsible for oversight and management of the company. It is regulated by G-10 central banks of Belgium, Canada, France, Germany, Italy, Japan, The Netherlands, the United Kingdom, the United States, Switzerland, Sweden, alongside the European Central Bank. Its lead overseer is the National Bank of Belgium.
- The SWIFT oversight forum was established in 2012. The G-10 participants were joined by the central banks of India, Australia, Russia, South Korea, Saudi Arabia, Singapore, South Africa, the Republic of Turkey, and the People's Republic of China.
- In 2021, the SWIFT financial messaging platform had recorded an average of 42 million FIN messages per day.

2) Participatory Notes

What are P-Notes?

 P-Notes or Participatory Notes are instruments issued by a registered Foreign Institutional Investor (FII) to an overseas investor who wishes to invest in Indian stock markets without registering themselves with the market regulator, the Securities and Exchange Board of India (SEBI).

What are the government & regulatory concerns?

- The primary reason why P-Notes are worrying is because of the anonymous nature of the instrument as these investors could be beyond the reach of Indian regulators.
- Further, there is a view that it is being used in money laundering with wealthy Indians, like the promoters of companies, using it to bring back unaccounted funds and to manipulate their stock prices.

What has SEBI done to regulate P-Notes?

- SEBI has taken a number of steps to tighten rules on P-Notes.
- From January 2011, FIIs have had to follow KYC norms and submit details of transactions.
- In 2014, new rules on FIIs made it mandatory for those issuing P-Notes to submit a monthly report disclosing their portfolios.
- Also, SEBI has mandated that in addition to KYC, the anti-money laundering rules (AML) will also be applicable to P-Note holders.
- SEBI also issued norms on transferability of P-Notes between two foreign investors and increased the frequency of reporting by P-Note issuers.

Why in News?

- Investments in the Indian capital market through Participatory notes (Pnotes) dropped to ₹87,989 crore at the end of January and experts believe that foreign investors will continue with their negative stance amid the Ukraine crisis.
- According to SEBI data, the value of Pnote investments in Indian markets

- was at ₹87,989 crore by the end of January compared to ₹95,501 crore at December-end.
- P-notes are issued by registered Foreign Portfolio Investors (FPIs) to overseas investors who wish to be a part of the Indian stock market without registering themselves directly. They, however, need to go through a due diligence process.

3) GDP expected to grow at 8.9% in 2021-22

What's in the news?

- As per the second advance national income estimates released by the National Statistical Office (NSO), India's gross domestic product (GDP) is estimated to grow at 8.9% in 2021-22 instead of 9.2% estimated earlier, with year-on-year growth in the October to December 2021 period slipping to 5.4% from 8.5% in the previous quarter.
- Gross Value-Added (GVA) in the economy is expected to grow by 8.3% this financial year, from a 4.8% contraction in 2020-21.
- Barring the contact-intensive segment of Trade, Hotels, Transport, Communication & services related to Broadcasting, all sectors are expected to surpass pre-pandemic GVA levels this year.
- India's GDP had shrunk 6.6% in 2020-21, with the first half of the year recording a sharp contraction before GDP resurfaced to clock 0.7% growth in the October to December 2020 quarter.
- The GDP growth rates for the first and second quarters of 2021-22 were revised upwards marginally by the NSO from 20.1% to 20.3% and 8.4% to 8.5%, respectively.

Related Information National Statistical Office

- The National Statistical Office (NSO) is the Statistics Wing of the Ministry of Statistics and Programme Implementation.
- In 2019, the central government merged the Central Statistical

- Organisation (CSO) and National Sample Survey Organisation (NSSO) into the National Statistical Organisation.
- NSO is mandated with the following responsibilities:-
 - acts as the nodal agency for planned development of the statistical system in the country
 - compiles and releases the Index of Industrial Production (IIP) every month and conducts the Annual Survey of Industries (ASI);
 - organizes and conducts periodic all-India Economic Censuses
 - prepares national accounts as well as publishes annual estimates of national product, government and private consumption expenditure, capital formation, savings, etc. as also the state level gross capital formation of supraregional sectors and prepares comparable estimates of State Domestic Product (SDP) at current prices;

4) Govt clears 20% FDI in LIC under automatic route

What's in the news?

- The Union Cabinet has cleared an amendment to the FDI Policy to allow foreign direct investment (FDI) up to 20 per cent under the "automatic route" in the state-owned Life Insurance Corporation.
- This comes ahead of its proposed initial public offer (IPO), which is expected to be the largest in the Indian capital markets so far.

- As per industry estimates, the government expects to mobilise Rs 63,000-66,000 crore from the proposed share sale to meet its disinvestment target of Rs 78,000 crore for FY22.
- The existing FDI Policy does not prescribe any specific provision for foreign investment in LIC, which is established under the LIC Act, 1956. The FDI ceiling for LIC has now been made at par with that of public sector banks.
- While the government had last year raised the FDI limit in the insurance sector to 74 per cent from 49 per cent, it did not cover LIC that is governed by a specific legislation.

FDI Regulations

- FDI under sectors is permitted either through Automatic route or Government route.
 - Under the Automatic route, the non-resident or Indian company does not require any approval from GoI.
 - Whereas, under the Government route, approval from the GoI is required prior to investment. Proposals for foreign investment under the Government route are considered by the respective Administrative Ministry/Department.
- The Reserve Bank of India defines FDI as purchase of a stake in a listed company that's 10% or larger by an individual or entity based abroad, or any foreign investment in an unlisted

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firm.

INTERNATIONAL RELATIONS

1) Financial Action Task Force

About Financial Action Task Force (FATF)

- It is an intergovernmental organization that designs and promotes policies and standards to combat financial crime.
- Recommendations of the FATF target
 - Money laundering
 - o Terrorist financing
 - Other threats to the global financial system
- The FATF was created in 1989 by the G7 countries, and is headquartered in Paris.
- There are 37 members, including India and two regional organisations European Commission and the Gulf Cooperation Council.

Grey list FATF

- Member countries that have deficiencies in their anti-money laundering and counter terrorist financing (AML/CTF) regimes but they commit to an action plan to address these loopholes.
- Currently, there are more than 20 countries on the grey list, including Pakistan.

Black list FATF

- Member countries that have deficiencies in their anti-money laundering and counter terrorist financing (AML/CTF) regimes and do not end up doing enough.
- As of now there are only two countries in the blacklist — Iran and North Korea.
- While greylist includes countries which are considered as safe havens for supporting terror funding and money laundering, blacklisting will mean severe strictures on the countries banks and credit rating, as well as access to loans and foreign investments.
- Pakistan has been under the FATF's scanner since 2018, when it was put

on the greylist for terror financing and money laundering risks.

Why in News?

- The Financial Action Task Force has once again retained Pakistan on the increased monitoring list, also known as the "grey list" and called the country to work on complex money laundering investigations and prosecutions. This decision was made after the conclusion of the four-day FATF Plenary from March 1-4.
- Pakistan has been on the FATF's grey list for deficiencies in its counterterror financing and anti-money laundering regimes since June 2018. This greylisting has adversely impacted its imports, exports, remittances, and limited access to international lending.

2) UNHRC

About UNHRC

- The Human Rights Council is an intergovernmental body within the United Nations system.
- The Council's mandate is to promote "universal respect for the protection of all human rights and fundamental freedoms for all" and "address situations of violations of human rights, including gross and systematic violations, and make recommendations thereon."
- It has the ability to discuss all thematic human rights issues and situations that require its attention throughout the year.
- The Council was created by the United Nations General Assembly in 2006. It replaced the former United Nations Commission on Human Rights.
- The headquarters of UNHRC is in **Geneva, Switzerland.**

Membership

 The Council is made of 47 Member States, which are elected by the majority of members of the General

- Assembly of the United Nations through **direct and secret ballot**.
- The Council's Membership is based on equitable geographical distribution.
- Members of the Council serve for a period of three years and are not eligible for immediate re-election after serving two consecutive terms.

Why in News?

- India abstained on a vote at the UN Human Rights Council in Geneva as the Council decided to set up an international commission of enquiry into Russia's actions in Ukraine.
- The resolution, the strongest one to be adopted by the UN system yet, strongly condemned aggression by Russia, and said it was gravely concerned about reports of human rights violations by Russian forces, civilian casualties and the forced displacement of 6,60,000 refugees due to Russian bombing and shelling in populated areas.
- India was among 13 countries of the 47-member council elected from UN members that abstained from the resolution, along with China, Pakistan, Kazakhstan, Sudan, Uzbekistan and Venezuela.

3) History of Russia- Ukraine Conflict

The prelude

- Russian President Vladimir Putin announced his decision to recognise the two breakaway republics of Ukraine Donetsk and Luhansk as independent states, which turned out to be a prelude for Russia's eventual military operation in the region.
- In the speech, Mr. Putin blamed Soviet leaders, especially Lenin, the leader of the 1917 Bolshevik revolution, for the disintegration of what he called "historical Russia". Lenin's idea of building the country "on the principles of autonomisation" ("the right of self-determination, up to secession") eventually led to the fall of the Union of Soviet Socialist Republics (USSR), he said.

How did the USSR fail?

- The unravelling of Soviet power began in the late 1980s with protests in the Eastern Bloc as well as in Soviet republics and the Soviet exit from Afghanistan.
- It **started in Poland**, which hosted the headquarters of th**e** Soviet-led Warsaw Pact security alliance. Protests spread to Hungary, East Germany, Bulgaria, Czechoslovakia and Romania. In June 1989, the anticommunist Solidarity movement, won an overwhelming victory in a partially free election in Poland, leading to the peaceful fall of communist rule. It triggered a chain reaction across the Eastern Bloc. In November 1989, the Berlin Wall that had separated the capitalist West Berlin and the communist east, fell, leading to the **German reunification a** vear later.
- **Domestically**, the **Soviet Union** was going through a **tough economic phase**. Mikhail Gorbachev, the last leader of the Soviet Union, stated that "an era of stagnation" gripped the country in the mid-1960s.
- Gorbachev introduced economic reforms, such as openness/transparency (glasnost), decentralisation/restructuring (perestroika) and opening up of the economy for foreign trade. The reforms made the nationalists in the Soviet republics (administrative units) stronger, but failed to revitalise the economy.
- In 1988, Estonia, a republic on the Baltic coast, became the first Soviet administrative unit to declare state sovereignty inside the Union. In March 1990, Lithuania, another Baltic republic, became the first to declare independence from the USSR.
- After the German reunification, the North Atlantic Treaty Organization (NATO) expanded to East Germany.
 Crisis was spreading across the Soviet republics and Gorbachev was planning to decentralise much of the central government's powers to the 15 republics through the New Union

- Treaty, which was also a bid to renegotiate the original treaty that established the USSR in 1922.
- In August 1991, faced with the crisis in the Union, a group of communist hardliners, including top military and civilian leaders, tried to take power in their hands by ousting Gorbachev in a coup.
- On December 8, 1991, leaders of three Soviet republics—Russian President Boris Yeltsin, Ukrainian **Presiden**t Leonid Kravchuk Belarusian Prime Minister Vvacheslav Kebich signed Belavezha Accords, announcing that the USSR no longer existed. They also announced the establishment the Commonwealth Independent States (CIS) that would replace the USSR.

Post the breakup

- Of the former Soviet republics, nine are members of the CIS — Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Moldova. Russia. Tajikistan, Uzbekistan. And Turkmenistan is an associate member. Russia retains enormous influence in these countries. Russia has also formed a security organisation, the **Collective Security Treaty** Organisation (CSTO), with former Soviet republics. Armenia, Belarus, Kazakhstan, Kyrgyzstan and Tajikistan are CSTO members, besides the Russian Federation.
- Of the 15 republics that became independent after the fall of the Soviet Union, the three Baltic countries Latvia, Lithuania and Estonia, all sharing borders with Russia became members of NATO in 2004.
- In 2014, Russia annexed the Crimean republic, a Black Sea Peninsula, from Ukraine.

Recently, Russia recognised two more breakaway republics from Ukraine -Luhansk and Donetsk in the Donbas region — and sent troops there. Russia also maintains a military presence in Transnistria, a breakaway republic from Moldova, and has dispatched troops to the borders between Armenia and Azerbaijan in 2020, to end a conflict between the two countries over Nagorno Karabakh (Republic of Artsakh), another breakaway republic.

Why Russia Ukraine relationship soured

- After it became independent in 1991, Ukraine largely adopted a neutral foreign policy. It was one of the founding members of the CIS, but did not join the CSTO, the security organisation.
- But the NATO offer of membership in 2008 started changing equations between Moscow and Kyiv.
- After the regime of a pro-Russian leader in Ukraine was brought down in the 2014 Euromaidan protests and a pro-West government was established in Ukraine, relations turned hostile.
- Russia moved swiftly to take Crimea, which also hosts Russia's Black Sea fleet, and started supporting separatist rebels in Donbass. Ukraine later exited the CIS and wrote its desire to join NATO into its Constitution. These developments pulled the countries apart, setting the stage for permanent hostility, which led to the current conflict.

Why in News?

• Russia has sent its army into Ukraine.

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SCIENCE AND TECHNOLOGY

1) Chip shortage

Why in News:

• The Russian invasion in Ukraine is making the global chip shortage situation worse.

How did the shortage crisis begin?

- After reaching its peak in 2011, the laptop market growth slowed down with the rise of alternatives such as smartphones and tablets. Then, the pandemic hit. People switched to work from home, children connected to schools through laptops, and gettogethers happened over video calls. This shift led to a surge in demand for laptops and tablets.
- But high consumer demand for lowend products, coupled with large orders from tech firms choked chip makers whose factories were also closed during lockdowns. As the industry gradually tried to pull itself out of the supply crunch, logistical complexities exacerbated the problem. And then the cost of moving containers across the world drove up the price of the core component used in most electronic devices and automobiles.

Why is the Russian invasion impacting chip shortage?

- According to a report by Moody's Analytics, Ukraine supplies rare gases used to produce semiconductor fab lasers, and Russia exports rare metals like palladium to make semiconductors. This combination is required to build chipsets that power a range of devices, from automobiles to smartphones.
- Palladium is often used as an alternative to gold in making various devices as the metal is highly malleable and resistant to corrosion. The rare metal is considered to be softer than gold, but is still much harder and durable than gold. This quality of palladium gives it more protection against an

- impact and a greater resistance to denting.
- It is used to make multi-layer ceramic capacitors (MLCCs), which are important to make smartphone screens, stereo systems, and power circuit breakers.

Who is producing the semiconductor chips?

- Corporations and consumers globally use semiconductors in millions of devices, including space vehicles, car computers, smartphones, medical equipment, appliances, and more.
- In 2019, the semiconductor industry in the United States accounted for 47 percent of the global semiconductor market.
- Korean manufacturers are second in the world with about 19 percent of the market, with companies from Japan and the European Union (EU) each accounting for ten percent of the market.

India and IC production

- The Indian electronics sector is tremendously growing with the demand expected to cross USD 400 billion by 2023-24.
- Domestic production has grown from USD 29 billion in 2014-15 to nearly USD 70 billion in 2019-20 (Compounded Annual Growth Rate of 25%).
- Microchip production will help India move up from an assembler to a manufacturer, with considerable multiplier effect on the economy.
- Most of this production takes place in the final assembly units (last-mile industries) located in India and focussing on them would help develop deep backward linkages, thus inducing industrialisation. This was an idea propounded by economist Albert O Hirschman in his theory of 'Unbalanced Growth'.
- The **Economic Survey** 2019-20 also promoted this idea and suggested "assembly in India for the world", in a

- bid to create four crore well-paid jobs by 2025 and eight crore jobs by 2030.
- The government recently unveiled three schemes (Production Linked Incentive, Component Manufacturing Scheme and Modified Electronics Manufacturing Clusters Scheme).
- The Government is also planning to establish an "India Semiconductor Mission" to drive long-term strategies for the sustainable development of the chip and display industry.

What are rare earth elements?

- The rare earth elements (REE) are a set of seventeen metallic elements.
 They are called 'rare earth' because earlier it was difficult to extract them from their oxides forms technologically.
- They are an essential part of many high-tech devices. The 17 Rare Earths are cerium (Ce), dysprosium (Dy), erbium (Er), europium (Eu), gadolinium (Gd), holmium (Ho),

lanthanum (La), lutetium (Lu), neodymium (Nd), praseodymium (Pr), promethium (Pm), samarium (Sm), scandium (Sc), terbium (Tb), thulium (Tm), ytterbium (Yb), and yttrium (Y).

Why are they important?

- Rare earth minerals are crucial to the manufacture of magnets used in industries of the future, such as wind turbines and electric cars.
- And they are already being used in consumer goods such as smartphones, computer screens and telescopic lenses.
- REEs are needed in hightemperature superconductivity, safe storage and transport of hydrogen for a post-hydrocarbon economy, reduce sulphur oxide emissions and hence it has abundant value.

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DEFENCE

1) Advanced Medium Combat Aircraft (AMCA)

Why in News?

 India and France are going conclude a deal for the joint development of a 125KN engine for the indigenous fifth generation Advanced Medium Combat Aircraft (AMCA).

About AMCA

- AMCA will be a single-seat, twinengine, stealth all-weather swingrole fighter aircraft.
- The AMCA design is optimised for low radar cross section and supercruise capability.
- It would be a twin engine stealth aircraft with an internal weapons bay and a diverterless supersonic intake, which has been developed for the first time for which the design is complete.
- It will be a 25-tonne aircraft with internal carriage of 1,500 kg of payload and 5,500-kg external payload with 6,500 kg of internal fuel.
- The AMCA which is intended to perform a multitude of missions including air superiority, groundstrike, Suppression of Enemy Air Defenses (SEAD) and electronic warfare (EW) missions would be a potent replacement for the Sukhoi Su-30MKI air superiority fighter, which forms the backbone of the IAF fighter fleet.
- The AMCA will have stealth and nonstealth configuration and will be developed in two phases, AMCA Mk1 with existing GE414 engine and an AMCA Mk2 with an advanced, more powerful engine.
- There are two primary approaches to making a military platform more stealthy.
 - Geometric stealth: the aircraft's form is angled in such a way that maximum radar waves are deflected away, reducing the radar crosssection.

 Material stealth: The aircraft is made of radar-absorbing materials, which absorb radio waves and so reduce the radar footprint.

Additional Information

- India has in the past unsuccessfully attempted to indigenously design and develop a jet engine for the LCA under the Kaveri programme sanctioned in 1989.
- The Shakti engine, which powers the indigenous Advanced Light Helicopter and its later variants, is a joint development between Safran and HAL.

2) Kuki Conflict

Who are the Kukis?

- The Kukis are an ethnic group including multiple tribes originally inhabiting the North-Eastern states of India such as Manipur, Mizoram and Assam; parts of Burma (now Myanmar), and Sylhet district and Chittagong hill tracts of Bangladesh.
- While Kuki is not a term coined by the ethnic group itself, the tribes associated with it came to be generically called Kuki under colonial rule.
- In Manipur, the various Kuki tribes, living mainly in the hills, currently make up 30% of the total 28.5 lakh population of the State.

What led to the Kuki insurgencies in Manipur?

- The Kuki insurgent groups have been under Suspension of Operation (SoO) since 2005, when they signed an agreement for the same with the Indian Army.
- The roots of Kuki militancy **lie in** conflicts of ethnic identity.
- First was the demand for selfdetermination solely for groups belonging to their ethnic fabric, meaning the dream to form a Kukiland which includes Kuki

- inhabited regions of Myanmar, Manipur, Assam and Mizoram.
- The second reason for insurgency lies in the inter-community conflicts between the Kukis and the Nagas in Manipur.

Why in News?

• Assembly Elections went underway in Manipur.

3) Russia-Ukraine conflict and India's defence import

Why in News:

 With tensions escalating between Russia and the West over the Ukraine crisis, India, which has major defence cooperation with Russia and also with Ukraine, is facing uncertainty over timely deliveries in the near future in addition to the lingering threat of U.S. sanctions under CAATSA (Countering America's Adversaries Through Sanctions Act) over the S-400 deal.

S-400 system

- It is an air defence missile system developed by Russia, which integrates a multifunction radar, autonomous detection and targeting systems, anti-aircraft missile systems, launchers, and command and control centre.
- It is essentially one of the best Modern Long-Range Surface to Air Missile (MLR SAM) in the world, considered much ahead of the USdeveloped Terminal High Altitude Area Defense system (THAAD).
- It is capable of firing three types of missiles to create a **layered defence**.
- Within a range of 400 kilometres and at a height of up to 30 kilometres, the system can engage all types of aerial targets, including aircraft, unmanned aerial vehicles (UAVs), and ballistic and cruise missiles.
- It can track 100 airborne targets and engage six of those airborne targets at

- the same time, and it can be integrated into existing and future air defence units of the air force, army, and navy.
- The command post is equipped with LCD consoles to process the air space surveillance data of the individual batteries.
- It controls and monitors long-range surveillance radar, tracks airborne threats, prioritises the threats, and coordinates other batteries.

Significance of acquiring S-400 Triumf

- India's acquisition is crucial to counter attacks in a two-front war.
- For the Indian Air Force (IAF), the high-end technology S-400 would give a fillip and make up for its falling fighter aircraft squadrons in the medium-term.
- China has also agreed to purchase six battalions of the S-400 Triumf from Russia, thus India should be ready to confront it.

CAATSA

- In a 2017 law passed by the US named Countering America's Adversaries through Sanctions Act (CAATSA), whose objective is to counter American adversaries Iran, Russia and North Korea through punitive measures.
- Title II of the Act deals with sanctions in Russian interests, including its defence industry. The Act empowers the **US President to impose** at least five of the 12 listed sanctions mentioned in Section 235 on persons who engage in a "significant transaction" with Russian defence and intelligence sectors.
- India's multi-billion dollar deal to purchase the Russian-made S-400 air defence system may trigger US sanctions on India under CAATSA.

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ART AND CULTURE

1) Stupas of Kahu jo daro

About the Stupa

 Kahu-Jo-Darro, also known as Mirpur Khas stupa, is an ancient Buddhist stupa found at the Mirpurkhas archaeological site in Sindh, Pakistan.

Major excavations from the site



- "A merchant devotee", dating the figure to "5th century CE".
- Five large, seated Buddha images in high relief.

- 297 moulded bricks and architectural fragments, a few rectangular bricks.
- A large number of sun-dried clay tablets.
- And a tiny fragment of stone depicting a Jataka scene.
- The words 'ye dharma', written in Brahmi characters found on numerous clay tablets.
- Two roundels and rectangular bricks, depicting Kubera, a few rectangular bricks bearing the image of Jambhala (Jambhala is also believed to be an emanation of Avalokitesvara the Bodhisattva of Compassion.)
 - Bodhisattva is a person who has attained prajna, or Enlightenment, but who postpones Nirvana in order to help others to attain Enlightenment. There are many different Bodhisattvas.

Why in News:

 Some of the excavated items from Kahu jo daro are being displayed at the Prince of Wales Museum in Mumbai (now named Chhatrapati Shivaji Maharaj Vastu Sangrahalaya).

PIB ANALYSIS

1) Khadi and Village Industries Commission

About KVIC

- Khadi and Village Industries Commission (KVIC) is a statutory body under the Ministry of Micro, Small and Medium Enterprises.
- Established in 1956, KVIC aims to plan, promote, facilitate, organize, and assist in the establishment and development of Khadi and Village industries in the rural areas.
- Over the years, the main thrust of KVIC activities has been to provide a larger share of employment to scheduled caste and scheduled tribes and women.

Why in News?

- The Khadi and Village Industries Commission has urged the Government to lift the export prohibition on bamboo charcoal for optimum utilization of raw bamboo and higher profitability in the bamboo industry.
- One of the biggest challenges that the Indian bamboo industry faces today is the extremely high input cost owing to inadequate utilization of bamboo. However, export of bamboo charcoal would ensure complete utilization of the bamboo waste and thus make the bamboo business more profitable.

2) Pradhan Mantri Bhartiya Janaushadhi Pariyojana

About PMBIP

- Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) is a campaign launched by the Department of Pharmaceuticals to provide quality medicines at affordable prices to the masses.
- In 2015, an existing 'Jan Aushadhi Scheme' was revamped as 'Pradhan Mantri Jan Aushadhi Yojana' and in November, 2016, to give further impetus to the scheme, it was again renamed as "Pradhan Mantri Bhartiya Janaushadhi Pariyojana".

- PMBJP stores have been set up to provide generic drugs, which are available at lesser prices but are equivalent in quality and efficacy as expensive branded drugs.
- Bureau of Pharma PSUs of India (BPPI) is the implementing agency for PMBIP.

Objectives of PMBJP

- Making quality medicines available at affordable prices for all, particularly the poor and disadvantaged, through exclusive outlets "Jan Aushadhi Kendras", to reduce out of pocket expenses in healthcare.
- Create awareness among the public regarding generic medicines.
- Create demand for generic medicines through medical practitioners.
- Create awareness through education and awareness programs that high price need not be synonymous with high quality.

Who can open a Jan Aushadhi Kendras?

- State Governments or any organization / reputed NGOs / Trusts / Private hospitals / Charitable institutions / Doctors / Unemployed pharmacists/ individual entrepreneurs are eligible to apply for new Jan Aushadhi stores.
- The applicants shall have to employ one B Pharma / D Pharma degree holder as Pharmacist in their proposed store.
- They can be set up at any suitable place within Government hospital or Private hospital premises or anywhere outside the premises.

Why in News?

- The government has flagged off Jan Aushadhi Rath, Jan Aushadhi Mobile Vans and Jan Aushadhi E-rickshaws from in New Delhi as a part of the weeklong celebration across the country.
- The vehicles aim to raise awareness at the grassroot level about the benefits of the Pariyojana and Jan Aushadhi generic medicines which are available at affordable prices for all.

Related Information What are generic drugs?

- When a company develops a new drug

 often after years of research it

 applies for a patent, which prohibits
 anyone else from making the drug
 for a fixed period.
- To recover the cost of research and development, companies usually price their brand- name drugs on the higher side.
- Once the patent expires, other manufacturers duplicate and market their own versions of the drug.

Cost-effectiveness of generic medicines

- Since the manufacture of these generic drugs do not involve a repeat of the extensive clinical trials to prove their safety and efficacy, it costs less to develop them. Generic drugs are, therefore, cheaper.
- However, because the compounds in the generic versions have the same molecular structure as the brand-name version, they provide the same clinical benefits as its brand-name version. The generic drug has the same "active ingredient" as the brand-name drug. This ingredient is the one that cures the patient; and other, "inert ingredients", which give the drug its colour, shape or taste, vary from the brand-name drug to the generics.
- In addition, multiple applications for generic drugs are often approved to market a single product; this creates competition in the marketplace, typically resulting in lower prices.
 Typically results in prices about 85% less than the brand-name.

About BPPI

- The Bureau of Pharma PSUs of India comprising all the Pharma CPSUs under the Department of Pharmaceuticals was established in 2008.
- It aims to bring about effective collaboration and cooperation in furthering the working and resources of these organizations.

3) United Nations Environment Programme

About UNEP

- The United Nations Environment Programme (UNEP) was created as a result of the United Nations Conference on human environment in 1972 in Stockholm.
- It addresses environmental issues at the global and regional level for the United Nations. UNEP's mission is "to provide leadership and encourage partnership caring in for environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations."
- To accomplish its mission, UNEP:
 - assesses environmental conditions and trends at the global, regional and national levels;
 - develops international agreements and national environmental instruments;
 and
 - strengthens institutions for wise environmental management.
- UNEP is governed by the United Nations Environment Assembly, a council with universal membership that sets the UNEP agenda.
- Focus Areas: climate change; disasters and conflicts; ecosystem management; environmental governance; environment under review; harmful substances; and resource efficiency.

Why in News?

- The fifth United Nations Environment Assembly (UNEA 5.2) was recently concluded in Nairobi.
- India engaged constructively with all member states in UNEA 5.2 to develop consensus on the resolution for driving global action on plastic pollution by setting up of an intergovernmental negotiating committee for a new international legally binding treaty.
- On the insistence of India, the principle of national circumstances and capability while taking actions to

address plastic pollution was included in the text of the resolution to allow developing countries follow their development trajectories.

4) Exercise MILAN

What's in the news?

 The sea phase of the 11th edition of multilateral Exercise MILAN which witnessed participation of 26 ships, one submarine and 21 aircraft, culminated recently.

- A series of complex and advanced exercises were undertaken in all three dimensions of Naval operations to enhance compatibility, interoperability, mutual understanding and maritime cooperation amongst the partner Navies.
- The sea phase commenced with a series of exercises being undertaken to enhance the interoperability amongst the participating Navies.

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News in Depth

AIR NEWS

1) Polio Vaccination

Polio

- Polio, or poliomyelitis, is a disabling and life-threatening disease caused by the poliovirus.
- The virus **spreads from person to person** and can infect a person's spinal cord, causing paralysis.
- Poliovirus is very contagious. It is transmitted by person-to-person spread mainly through the faecal-oral route or, less frequently, by a common vehicle (e.g. contaminated water or food) and multiplies in the intestine, from where it can invade the nervous system.
- There is **no cure for polio**, it can only be prevented by **immunization**.

Types and Vaccines

- There are three wild types of poliovirus (WPV) - type 1, type 2, and type 3. There are two vaccines used to protect against polio disease, oral polio vaccine and inactivated poliovirus vaccine.
- The oral polio vaccine (OPV) involves a weakened poliovirus which is orally administered. It is used in many countries to protect against polio disease and has been essential to the eradication effort.
- Inactivated Poliovirus Vaccine (IPV) involves an inactivated (killed) poliovirus administered via injection.

Vaccine-derived poliovirus (VDPV)

- When a child is immunized with oral polio vaccine, the weakened vaccinevirus replicates in the intestine for a limited period, thereby developing immunity by building up antibodies.
- During this time, the vaccine-virus is also excreted. In areas of **inadequate**

- **sanitation**, this excreted vaccine-virus can spread in the immediate community, before eventually dying out.
- On rare occasions, if a population is seriously under-immunized, the vaccine-virus can genetically change into a form that can paralyse – known as a vaccine-derived poliovirus (VDPV) which causes Vaccine derived Polio.
- VDVP are usually observed in children with **primary immunodeficiency.** Such children are unable to mount an immune response and are, therefore, unable to clear the intestinal vaccine virus infection.
- This condition doesn't happen with Inactivated Poliovirus Vaccine as it doesn't contain live viruses. IPV involves an inactivated poliovirus administered via injection.

Eradication of Polio

- Wild poliovirus type 2 and Wild poliovirus type 3 have been declared as eradicated worldwide in 2015 and 2019 respectively.
- Type 1 wild poliovirus is still in circulation and is restricted to Afghanistan and Pakistan.

Why in the news?

• Several states have launched the Intensive Pulse Polio Immunization (IPPI) drive.

2) World Wildlife Day

What's in the news?

- World Wildlife Day was observed on March 3. The day is observed to celebrate and raise awareness of the world's wild animals and plants.
- The United Nations General Assembly, in 2013 proclaimed the 3rd of March as

- World Wildlife Day. As it was on this day in 1973 that the Convention was signed on International Trade in Endangered Species of Wild Fauna and Flora.
- This year the World Wildlife Day is being celebrated under the theme "Recovering key species for ecosystem restoration".
- It seeks to draw attention to the conservation status of some of the most critically endangered species of wild fauna and flora, and to drive discussions towards imagining and implementing solutions to conserve them.

Significance

- Around more than 8000 species of wild fauna and flora are endangered and close to 30,000 more are known to be on the verge of getting extinct or vulnerable. It is also estimated that around a million species are said to be extinct. This day holds significance because saving these species aligns with UN Sustainable Development Goals.
- India, is one of the most biodiverse regions of the world, home to three biodiversity hotspots - the Western Ghats, the Eastern Himalayas, and the Indo-Burma hotspot. The country has seven World Heritage Sites, eleven Biosphere Reserves and thirty-seven Ramsar sites.

3) Swachh Survekshan

What is Swachh Survekshan?

- Swachh Survekshan was introduced by the Ministry of Housing and Urban Affairs in 2016 as a competitive framework to encourage cities to improve the status of urban sanitation while encouraging large scale citizen participation.
- It has led to a spirit of healthy competition among cities and towns of India.

Why in News?

 The field assessment for the seventh consecutive edition of world's largest urban cleanliness survey, Swachh

- Survekshan, has been launched by the Ministry of Housing and Urban Affairs.
- The journey that started in 2016 with only 73 cities with million plus population has grown manifold with 434 cities in 2017, four thousand 203 cities in 2018, four thousand 237 cities in 2019, four thousand 242 cities in 2020 and four thousand 320 cities in Swachh Survekshan 2021, including 62 Cantonment Boards.

Related Information About SBM

- Swachh Bharat Mission (SBM), launched on 2nd October 2014, is a massive mass movement that seeks to create a Clean India by October 2, 2019 (150th birth anniversary of Mahatma Gandhi).
- It has 2 components urban and rural.
 - 1. **SBM Urban** aims for the elimination of open defecation, conversion of unsanitary toilets to pour flush toilets, eradication of manual scavenging, municipal solid waste management and bringing about a behavioural change in people regarding healthy sanitation practices.
 - 2. **SBM Rural** aims to make India an open defecation free country. It seeks to improve the levels of cleanliness in rural areas through Solid and Liquid Waste Management activities and making Gram Panchayats Open Defecation Free (ODF), clean and sanitised.
- The urban component of the mission is implemented by the Ministry of Housing and Urban Affairs, and the rural component by the Department of Drinking Water and Sanitation, Ministry of Jal Shakti.

Phase II of SBM Rural

- In 2020, the Union Cabinet approved the **Phase II of the Swachh Bharat Mission (Grameen)** till 2024-25.
- It will focus on Open Defecation Free Plus (ODF Plus), which includes ODF sustainability and Solid and Liquid Waste Management (SLWM). The

program will also work towards ensuring that no one is left behind and everyone uses a toilet.

Urban Swachh Bharat Mission 2.0

- In the Union Budget 2020-21, the government unveiled **Urban Swachh Bharat Mission 2.0.** It will stress on further strengthening of the 'swachhata' (cleanliness) campaign of urban India and the government allocated the budget of Rs. 1.41 lakh crore, which will be implemented over five years from 2021.
- The government intends to focus on complete faecal sludge management and wastewater treatment, source segregation of garbage, reduction in single-use plastic, reduction in air pollution, especially waste from construction and demolition, and bioremediation of dumpsites.

4) SANKALP Scheme

About the Scheme

- Skills Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP) is a supporting training programme to skill schemes which focuses improvement of quality, strengthening of institutions and inclusion of weaker sections in skill training.
- It is a World Bank loan assisted programme of the Ministry of Skill Development and Entrepreneurship (MSDE) with three key Result Areas (RA), namely
 - Institutional Strengthening at Central, State, and District level;
 - Quality Assurance of skill development programmes; and
 - Inclusion of marginalized populations in skill development programmes.
- The implementation period of SANKALP is till March, 2023.

Outcomes

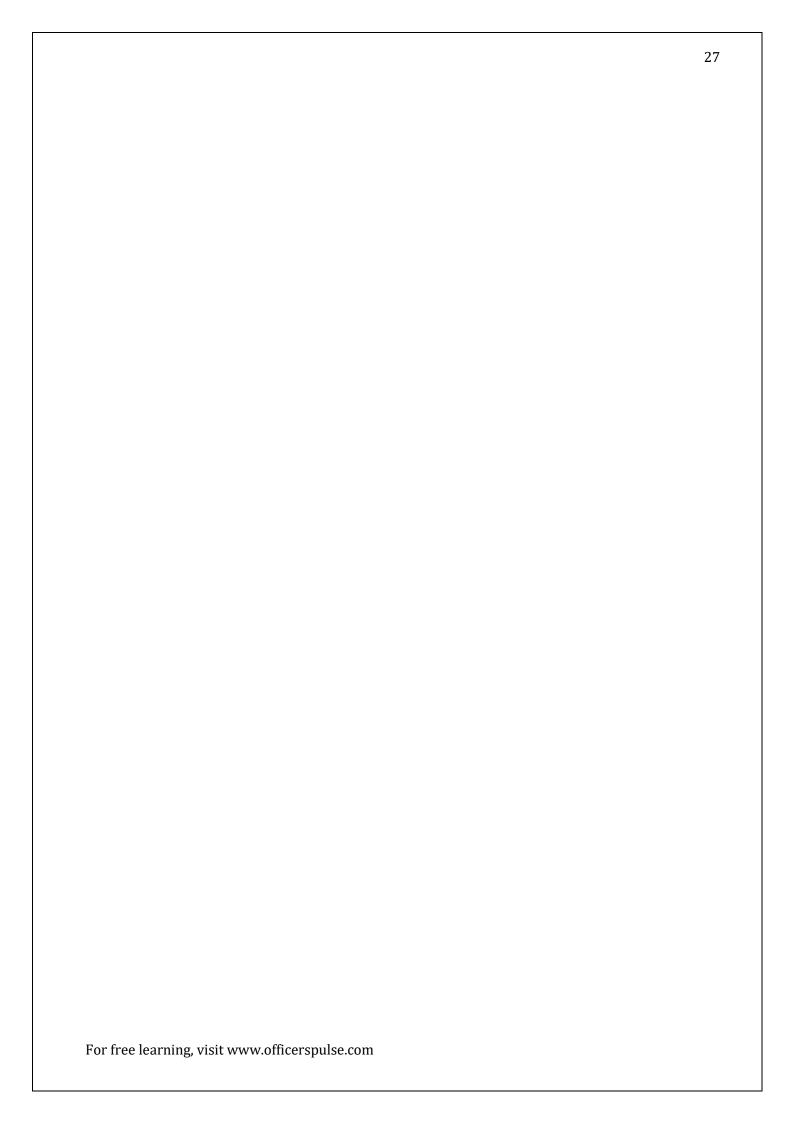
 SANKALP has undertaken several initiatives to contribute to improvement in employability, some of which are as under:

- Strengthening of District Skill Committees for improved access to and demand driven skill trainings for employment.
- certification in Recognition of Prior Learning (RPL) at Gram Panchayat level for improving employment qualitatively.
- Funded development of an IT system namely "Skill India Portal" to capture the data for skilling related activities across the country.
- Global Skill Gap study was conducted to identify the global gaps in demand and supply of skilled manpower as well as overseas employment opportunities for skilled workers from India. The Report helped in identifying important countries of interest as destination and job roles of interest.
- A Gender Action Plan (GAP)
 has been prepared for
 promoting inclusion of women
 in Short term skilling and
 livelihood opportunities.

Why in News?

- The Skill Development and Entrepreneurship Ministry under its SANKALP programme has brought an initiative to fund a stipend for one thousand apprentices across Central Ministries for one year.
- The initiative has been developed so that the youth of the country benefit by learning hands-on skills by way of domain-specific apprenticeship opportunities. After one year of engagement, the Ministries are expected to continue these positions utilizing their own funds.
- National Skill Development Corporation has been entrusted with the overall responsibility of coordination for the project.

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THE HINDU EDITORIALS

1) Lines and roles

Context

 Growing tussle between the elected Chief Ministers and the appointed Governors like in the case of West Bengal Kerala etc., raises the reason for clarifying the role of Governor in a clear and explicit way in the Constitution.

Background

- According to Article 163,
- (1) There shall be a Council of Ministers with the Chief Minister at the head to **aid and advise** the Governor in the exercise of his functions, except in so far as he is by or under this Constitution required to exercise his functions or any of them in his discretion.
- (2) If any question arises whether any matter is or is not a matter as respects which the Governor is by or under this Constitution required to act in his discretion, the decision of the Governor in his discretion shall be final, and the validity of anything done by the Governor shall not be called in question on the ground that he ought or ought not to have acted in his discretion.

Reasons for the issue

- The problems may have to do with the way the Governors understand their own powers.
- Constrained by the 'aid and advice' clause in their routine functioning, some Governors seem to be using the discretionary space available to them to keep regimes on tenterhooks.
- The Constitution fixes no time-frame for the Governors to act.
- In Article 163, an unusual power is given to choose what is in their discretion and what is not.
- As the courts are being barred from inquiring into whether any advice given by the council of Ministers, Governors tend to take them more in their discretion.

Needed reforms

- Identifying the areas of discretion.
- Fixing a time-frame for them to act.

- Making it explicit that they are obliged to go by Cabinet advice on dealing with the Bills.
- In addition, as suggested by the M.M. Punchhi Commission, ending the practice of burdening Governors with the office of Chancellor in universities should also be considered.

2) The Ukraine war, India and a stand of non-alignment

Context

• The invasion of Russia on Ukraine and India's response to it on a global level.

Background

- It is widely recognised that Russia has legitimate security concerns. However, that does not justify the invasion of Ukraine.
- Ukraine is in no position to defend itself against Russian might.

India- US relationship

- The growing relationship with the United States especially in the **defense** sector has never been better.
- The famous Quad (India, the United States, Australia and Japan) which is essentially an arrangement to contain China is spearheaded by the US.

India-Russia Relationship

- On the other hand, India has a longstanding history of friendship with Russia, which is still the principal source of military hardware to share the technology involved.
- Russia has also helped India in the United Nations on many occasions.
- Russia had stalled action in the UN for several days at the time of the 1971 Bangladesh war.
- India needs Russian support in future as and when Pakistan, fully backed by China, brings up the Kashmir issue in the world organisation.

India's stance

 The Indian Government had done well by maintaining a kind of neutral position.

- It is a demonstration of the classical Nehruvian policy of non-alignment.
- For example: At the time of the Soviet Union marching into Hungary in 1956, India did not condemn the Soviet action.
- However, at present, if the war continues, resulting in large number of civilian casualties, and given the nuclear alert, Belarus's renouncing of non-nuclear status, the indiscriminate bombing of major cities, will all make it extremely difficult for India, to maintain the non-aligned position for long.

3) A cautionary tale: On warning of the IPCC report

Context

 The Intergovernmental Panel on Climate Change (IPCC), the largest international consortium of scientists analysing and reviewing the evidence on the present and future man-made impacts of climate change, has released a report on global climate change.

IPCC

- IPCC is an intergovernmental body of the United Nations responsible for advancing knowledge on humaninduced climate change.
- It was established in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP), and later endorsed by United Nations General Assembly.
- It is Headquartered in Geneva, Switzerland which consists 195 member states.

Warnings in the report

- The world faces unavoidable multiple climate hazards over the next two decades with global warming of 1.5°C; even temporarily exceeding this warming level would mean additional severe impacts, some of which will be irreversible.
- The report points out that the rise in weather and climate extremes has led to some irreversible impacts as

- natural and human systems are pushed beyond their ability to adapt.
- It also notes that most of the targets that the countries have set for themselves are too far in the future to have an impact in the short term at meaningfully reducing the climate impact.
- A major point of emphasis of the report, particularly for South Asia, is the trend in the 'wet bulb' temperature an index of the impact of heat and humidity combined and its effect on health.
- Lucknow and Patna, according to one of several studies cited in the report, were among the cities predicted to reach wet-bulb temperatures of 35°C if emissions continued to rise, while Bhubaneswar, Chennai, Mumbai, Indore, and Ahmedabad are 'at risk' of reaching wet-bulb temperatures of 32°C-34°C with continued emissions.

Wet-Bulb Temperature

- The wet-bulb temperature is the lowest temperature that can be reached under current ambient conditions by the evaporation of water only.
- Even heat-adapted people cannot carry out normal outdoor activities past a wet-bulb temperature of 32 °C (90 °F), equivalent to a heat index of 55 °C (130 °F).

Consequences

- This will have consequences such as a rise in heat-wave linked deaths or reduced productivity.
- Global sea levels will likely rise 44cm-76cm this century if governments meet their current emission-cutting pledges.
- If the ice sheets collapse more quickly than expected, sea levels could rise as much as 2 metres this century and 5m by 2150.
- India is one of the most vulnerable countries in terms of the population that will be affected by sea-level rise.
- By the middle of the century, around 35 million of its people could face annual coastal flooding, with 45 million-50 million at risk by the end of the century if emissions are high.

Way Forward

- In order to mitigate these challenges, India has announced that it will achieve net zero emissions by 2070, that is, there will be no net carbon emissions.
- By 2030, India committed to ensure that 50% of its energy will be from renewable energy sources.

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INDIAN EXPRESS EXPLAINED

1) Kavach, the Indian technology that can prevent two trains from colliding

What is Kavach?

- It is indigenously built Automatic
 Train Protection System in
 development since 2012, under the
 name Train Collision Avoidance
 System (TCAS), which got
 rechristened to Kavach or "armour".
- It is a set of electronic devices and Radio Frequency Identification devices installed in locomotives, in the signaling system as well the tracks, that talk to each other using ultra high radio frequencies to control the brakes of trains and also alert drivers, all based on the logic programmed into them.
- One of its features is that by continuously refreshing the movement information of a train, it is able to send out triggers when a loco pilot jumps signal, called Signal Passed at Danger (SPAD), a grave offense in railway operations with respect to safety, and the key to accidents like collision.
- The devices also continuously relay the signals ahead to the locomotive, making it useful for loco pilots in low visibility, especially during dense fog.

What is new?

- In the new avatar, India wants to position Kavach as an exportable system, a cheaper alternative to the European systems in vogue across the world.
- While now Kavach uses Ultra High Frequency, work is on to make it compatible with 4G Long Term Evolution (LTE) technology and make the product for global markets.
- Work is on to make the system such that it can be compatible with other already installed systems globally.
- The Research Designs and Standards Organisation (RDSO) in Lucknow along with private vendors are developing the system. India wants more private

- players to take up the development and subsequent production.
- Once rolled out, it may be the world's cheapest Automatic Train
 Protection System with the cost of rollout pegged at around Rs 30 lakh to 50 lakh per kilometer, a fourth of the cost of equivalent systems globally.

Why in News?

• Kavach Automatic Train Protection System was recently showcased by the Railways.

2) How dependent is India on Russia's weapons?

Why in News?

- Recent events of Russia's invasion of Ukraine has long-term implications for India, most significantly on the decades-old defence trade between the two.
- Even as the most immediate impact of Russia's invasion of Ukraine on India is the evacuation of thousands of Indian students who are stuck there, it is becoming clear there will be longterm implications too.
- New Delhi has been trying to walk a fine line, negotiating its relationships with the United States and other Western nations on one side, and the historically deep and strategic ties with Russia on the other, even as its stand is becoming incrementally critical to Russia as its forces continue to fight in Ukrainian cities.

How strong are Indian and Russian defence ties?

- India was reliant, almost solely on the British, and other Western nations for its arms imports immediately after Independence.
- But this dependence weaned, and by the 1970s India was importing several weapons systems from the USSR, making it country's largest defence importer for decades when it came to both basic and sophisticated weapons systems.

- In fact, it has provided some of the most sensitive and important weapons platforms that India has required from time to time including nuclear submarines, aircraft carriers, tanks, guns, fighter jets, and missiles.
- According to several people, the defence trade, which remains significant, is one of the important causes why India has not taken a critical stand openly against Russia. However, India-Russian ties cannot be viewed only from that perspective.
- The legacy of buying weapons from Russia has made India somewhat dependent on it, and even though India has tried to expand the base of countries from which it buys new military systems, Russian-origin weapons still have the lion's share.
- According to one estimate, the share of Russian-origin weapons and platforms across Indian armed forces is as high as 85 per cent.

What is the value of weapons India has bought from Russia?

- Russia is the second largest arms exporter in the world, following only the United States. For Russia, India is the largest importer, and for India, Russia the largest exporter when it comes to arms transfer.
- Between 2000 and 2020, Russia accounted for 66.5 per cent of India's arms imports. Of the \$53.85 billion spent by India during the period on arms imports, \$35.82 billion went to Russia.
- During the same period imports from the US were worth \$4.4 billion, and from Israel it was worth US\$ 4.1 billion.
- India remained the main recipient of Russian arms in 2016–20, accounting

for 23 per cent of the total, followed by China (18 per cent).

Is India trying to expand its weapons base?

- Over the last few years there has been a conscious effort to expand the weapons platform bases to not only other countries, but also domestically as well.
- Stockholm International Peace Research Institute (SIPRI) noted in its international arms transfer trends report last year that between 2011–15 and 2016–20 arms imports by India decreased by 33 per cent.
- Russia was the largest arms supplier to India in both 2011–15 and 2016–20. However, Russia's deliveries dropped by 53 per cent between the two periods and its share of total Indian arms imports fell from 70 to 49 per cent.
- In 2011–15 **the USA** was the second largest arms supplier to India, but in 2016–20 India's arms imports from the USA were 46 per cent lower than in the previous five-year period, making the USA the fourth largest supplier to India in 2016–20.
- **France and Israel** were the second and third largest arms suppliers to India in 2016–20.
- Russia's share in Indian arms imports was down to about 50 per cent between 2016 and 2020, but it still remained the largest single importer.
- But it is important for India to diversify its base, to not become too reliant on any single nation, as it can become a leverage that can be exploited by that nation.

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SANSAD TV

1) Leveraging the power of science

Background

- India has been on a rising trajectory on the Global Innovation Index for the past few years moving from 81st place in 2015 to 46th in 2021.
- India spends around 0.7% of GDP on R&D.
- The government plans to strengthen and boost the science and technology infrastructure in major sectors. They include Big Data, Cyber physical systems, Advanced manufacturing Waste processing etc.,

India's Stand

- The national institutes like IITs NITs are doing well in the research sector.
- The National Education Policy 2020 is expected to give a boost in the next few years.
- The budget estimates for the R&D in 2022-2023 is Rs. 5636 crores.
- India is fourth in terms of Unicorns and third in terms of start-up ecosystem globally.

Path Towards Future

- Currently, India's private Gross Expenditure on Research and Development is less than 40% whereas in developed countries it is more than 70%.
- The Department of Science and Technology is bringing together

- academia, industry and scientists as its stakeholders.
- Breaking of silos among the departments is a much needed one.
- The areas like school education, pedagogy, industry needs to be linked for the better result.
- Industry-academia linkage needs to be promoted through technology business incubators.
- The filing of online applications of **Intellectual Property Rights** should be promoted.

NIPAM (National Intellectual Property Awareness Mission)

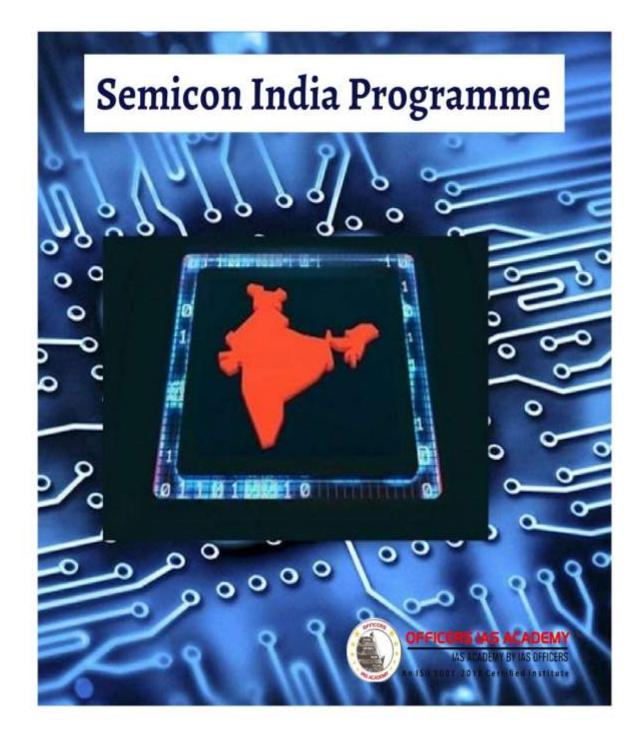
- The pan-India ambitious mission NIPAM aims to provide awareness on intellectual property and its rights to 1 million students.
- It aims to inculcate the spirit of creativity and innovation to students of higher education (classes 8 to 12) and ignite and inspire the students of college/Universities to innovate and protect their creations.

Conclusion

 The point of focus for India's development should be to create and support an ecosystem for R&D which would meet the needs and aspirations of not only the local but also of the global consumer.

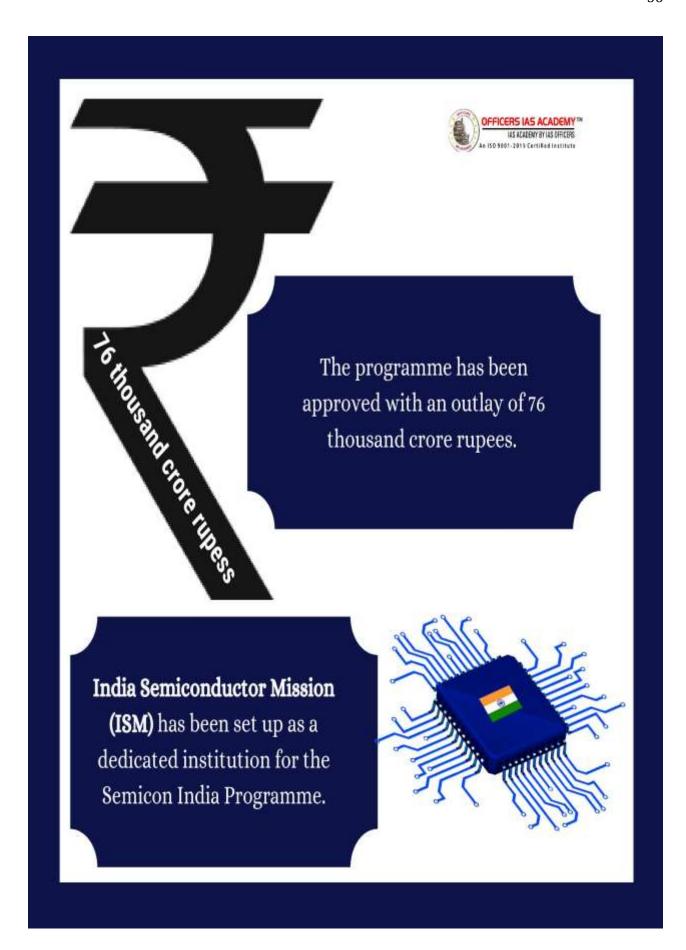
INFOGRAPHIC OF THE WEEK

1) SEMICON INDIA PROGRAMME

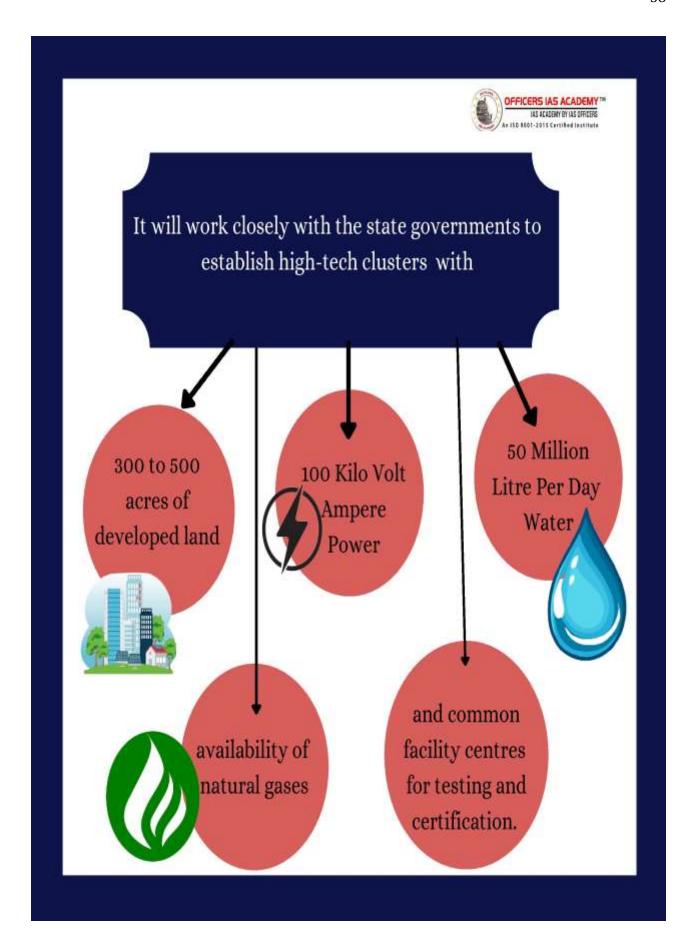


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Why in News?

The Semicon India Programme has elicited good response form the industry. India Semiconductor Mission has received 5 applications for Semiconductor and Display Fabs. It entails a total investment to the tune of over one lakh 53 thousand crore rupees.



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Reference:

https://newsonair.gov.in/News?title=India-getsproposals-worth-Rs-1.5-lakh-crore-forsemiconductor%2c-display-fabs%3a-MeitY&id=435855

For more such graphic learnings, visit https://officerspulse.com/infographics/

References

POLITY

- https://www.thehindu.com/news/nati onal/niti-aayog-studying-proposal-totax-foods-high-in-sugar-salt-to-tackleobesity/article65090417.ece
- https://www.thehindu.com/news/national/pm-modi-urges-states-private-sector-to-adopt-gati-shakti/article65095467.ece
- https://newsonair.gov.in/News?title= Assam-govt-declares-entire-state-as-%e2%80%9cDisturbed-Area%e2%80%9d-for-up-to-6months&id=436426
- https://www.thehindu.com/news/national/over-3700-indians-return-on-17-flights-as-part-of-operation-ganga/article65190596.ece

ENVIRONMENT

- https://www.thehindu.com/news/nat ional/ipcc-report-warns-ofunavoidable-multiple-climatehazards/article65 0092570.ece
- https://indianexpress.com/article/exp lained/intergovernmental-panel-onclimate-change-report-globalwarming-7795268/
- https://www.hindustantimes.com/env ironment/world-poverty-to-rise-asclimate-change-hits-food-suppliessays-un-panel-101646063018526.html
- https://www.thehindu.com/news/int ernational/explained-whos-pandemictreaty-to-prevent-future-globalhealth-disasters/article65144675.ece
- https://www.thehindu.com/news/nat ional/kerala/kadinamkulam-lake-tobecome-biodiversitysite/article65188119.ece
- https://megbiodiversity.nic.in/sites/d efault/files/bhs-pamphlet.pdf
- http://www.wiienvis.nic.in/Database/ bhs 8650.aspx
- https://www.thehindu.com/society/t heres-a-scourge-of-silicosis-amongmine-and-factory-workers-injharkhand/article65092384.ece
- https://www.who.int/occupational he alth/publications/newsletter/gohnet1
 2e.pdf?ua=1#:~:text=Silicosis%20is%

20a%20form%20of,and%20cyanosis %20(bluish%20skin)

ECONOMY

- https://www.thehindu.com/news/international/explained-what-is-swiftand-why-is-russia-being-threatened-with-exclusion-from-theservice/article65089651.ece
- https://indianexpress.com/article/exp lained/explained-russia-ukraineinvasion-swift-ban-sanctions-7792865/
- https://www.thehindu.com/business/ investments-through-p-notes-declineto-87989-crore-injanuary/article65144765.ece
- https://www.thehindu.com/news/nat ional/gdp-expects-to-grow-at-89-in-2021-22-instead-of-92/article65094876.ece
- https://indianexpress.com/article/business/economy/govt-clears-20-fdi-lic-ahead-mega-ipo-7792177/

INTERNATIONAL RELATIONS

- https://newsonair.gov.in/News?title= Financial-Action-Task-Force-keeps-Pakistan-in-Grey-List%3b-Asks-Islamabad-to-do-more-to-probe-andprosecute-terrorists&id=436626
- https://www.thehindu.com/news/international/india-abstains-in-unhrc-vote-on-establishing-independent-commission-of-inquiry-on-russia-ukraine-crisis/article65190155.ece
- https://www.thehindu.com/news/int ernational/explained-why-didvladimir-putin-bring-up-thedisintegration-of-the-ussr-prior-todeclaring-war-onukraine/article65086877.ece

SCIENCE AND TECHNOLOGY

 https://www.thehindu.com/news/int ernational/the-russian-invasion-ismaking-the-global-chip-shortagesituation-worse/article65183693.ece

DEFENCE

• https://www.thehindu.com/news/nat ional/drdo-and-safran-to-develop-

- <u>engine-for-indigenous-stealth-fighter/article65090271.ece</u>
- https://www.thehindu.com/news/nat ional/other-states/the-history-of-thekuki-insurgency-inmanipur/article65143720.ece
- https://www.thehindu.com/news/nat ional/india-faces-uncertainty-overdefence-supplies-from-russia-andukraine-as-also-caatsawaiver/article65144678.ece

ART AND CULTURE

• https://www.tribuneindia.com/news/features/from-sindh-so-near-and-yet-so-far-369501

PIB

- https://pib.gov.in/PressReleasePage.a spx?PRID=1801566
- https://pib.gov.in/PressReleasePage.a spx?PRID=1802352
- https://pib.gov.in/PressReleasePage.a spx?PRID=1802599
- https://pib.gov.in/PressReleasePage.a spx?PRID=1803162

AIR

- https://newsonair.gov.in/News?title= Nagaland-launches-Intensive-Pulse-Polio-Immunization-drive&id=436305
- https://newsonair.gov.in/News?title= <u>Today-is-World-Wildlife-</u> Day&id=436511

- https://newsonair.gov.in/News?title= Field-assessment-of-Swachh-Survekshan-2022launched&id=436478
- https://newsonair.gov.in/News?title= Ministry-of-Skill-Development-and-Entrepreneurship-under-%26%2339%3bSANKALP%26%2339 %3b-starts-initiative-to-fund-1%2c000-apprentices-stipend-across-Central-Ministries&id=436001

EDITORIALS

- https://www.thehindu.com/opinion/edi torial/lines-and-roles-the-hindueditorial-ongovernors/article65184157.ece
- https://www.thehindu.com/opinion/edi torial/a-cautionarytale/article65144683.ece

INDIAN EXPRESS

- https://indianexpress.com/article/exp lained/explained-kavach-the-indiantechnology-that-can-prevent-twotrains-from-colliding-7801295/
- https://indianexpress.com/article/explained/india-russia-military-weapons-defence-ties-7795804/

SANSAD

• https://www.youtube.com/watch?v=H vFeYl7ntVI