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GS I : Indian Heritage and Culture, History and Geography of the World and Society

Zealandia

In News

Researchers from GNS Science in New Zealand have announced that they mapped the shape and size of the Zealandia continent in unprecedented detail.

Zealandia

- Zealandia also known as the New Zealand continent, is an almost entirely submerged mass of continental crust that subsided after breaking away from Gondwanaland.
- It has variously been described as a continental fragment, a microcontinent, a submerged continent, and a continent.
- The name and concept for Zealandia was proposed by Bruce Luyendyk in 1995.

Background

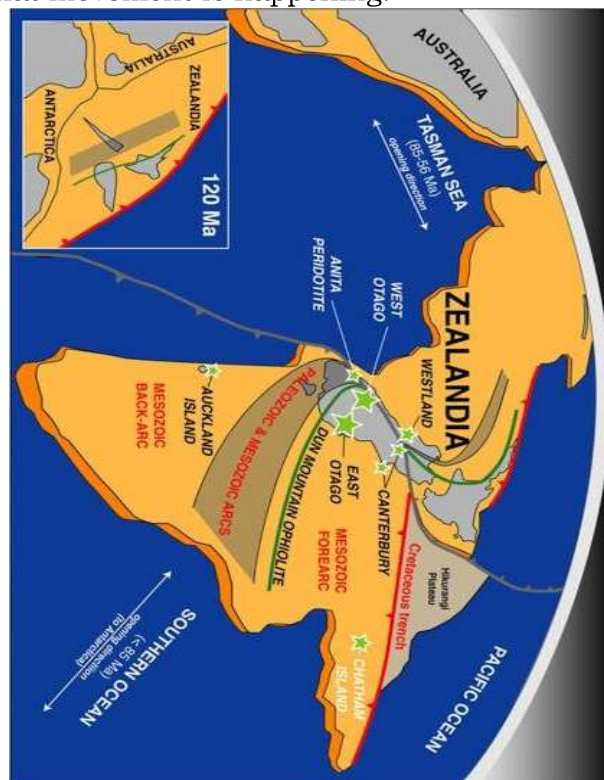
- Scientists confirmed the existence of an eighth continent, called Zealandia, under New Zealand and the surrounding ocean in 2017.
- Because 94% of Zealandia's 2 million square miles are underwater, mapping the continent is challenging.

Findings

- Zealandia's area is nearly 2 million square miles (5 million square kilometers) — about half the size of Australia.
- But only 6% of the continent is above sea level. That part underpins New Zealand's north and south islands and the island of New Caledonia.
- Latest map depicts coastlines, territorial limits, and the names of major undersea

features. The map is part of a global initiative to map the planet's entire ocean floor by 2030.

- This map also reveals where Zealandia sits across various tectonic plates, which of those plates are being pushed under the other in a process known as subduction, and how quickly that movement is happening.



Juneteenth Day

In News

The Greensboro City Council unanimously approved adding Juneteenth as a paid holiday for city employees starting next year. Greensboro is a city in North Carolina.

Juneteenth

Juneteenth, a day celebrated on June 19 every year, commemorates the official end of slavery in the United States. The Emancipation Proclamation was signed and granted slaves their freedom over two years earlier but it took until June 19, 1865, until the last of the slaves in Texas were proclaimed free.

Significance

- Juneteenth is the oldest nationally celebrated commemoration of the ending of slavery in the United States.
- In addition to marking a date of major significance in American history, Juneteenth has always been both a day of remembrance and an opportunity for African-Americans to honor their history and celebrate Black culture.
- The day has evolved over the years with people and communities developing their own traditions and customs. For instance, some communities purchased land for celebrating the day, such as Emancipation Park in Houston, Texas.
- Juneteenth was recognised as an official holiday in Texas on January 1, 1980.
- For Texans, the first Juneteenth celebration started from 1866, with community-centric events such as parades, cookouts, prayer gatherings, historical and cultural readings and musical performances.
- With the recent killing of George Floyd in Minneapolis and Rayshard Brooks in Atlanta by white policemen and the continuing protests over the treatment of African Americans by law enforcement, there is much discussion and introspection about race in America.

Emancipation Proclamation

On January 1, 1863, then-president Abraham Lincoln issued the Emancipation Proclamation, which declared that “all persons held as slaves” within the states in rebellion “are, and henceforward shall be free.” There were some four million slaves at the time.

On June 19, 1865, Major General Gordon Granger arrived in Galveston, Texas and announced the end of both the Civil War and slavery. Since then, Juneteenth has become a largely symbolic date representing freedom for African Americans.

Chaolung Sukapha

In News

Assam Chief Minister Sarbananda Sonowal has ordered the arrest of a Kolkata-based political commentator, Garga Chatterjee, who had described Chaolung Sukapha as a “Chinese invader”.

Chaolung Sukapha

- Chaolung Sukapha, the first Ahom king in medieval Assam, was the founder of the Ahom kingdom. He ruled Assam for six centuries.
- Contemporary scholars trace his roots to Burma.
- Sukapha was a leader of the Ahoms. He reached Brahmaputra valley in Assam from upper Burma in the 13th century with around 9,000 followers.
- According to the book 'A History of Assam', which is written by Sir Edward Gait, Sukapha is said to have left a place called Maulung in AD 1215 with eight nobles and 9,000 men, women and children — mostly men.
- He had with him two elephants, and 300 horses. Gait wrote that in 1235, Sukapha and his people settled in Charaideo in upper Assam after wandering about for years, defeating those who protested his advance, and temporarily staying at different locations.

Importance of Sukapha

- Sukapha’s significance - especially in today’s Assam - lies in his successful efforts towards assimilation of different communities and tribes. He is widely referred to as the architect of “Bor Asom” or “greater Assam”.
- To commemorate Sukapha and his rule, Assam celebrates “Asom Divas” on December 2 every year.

Ahom Kingdom

- The Ahom kingdom was a late medieval kingdom in the Brahmaputra Valley in Assam.



- It is well known for maintaining its sovereignty for nearly 600 years and successfully resisting Mughal expansion in Northeast India.
- Kingdom expanded under Suhungmung in the 16th century and became multi-ethnic in character, casting a profound effect on the political and social life of the entire Brahmaputra valley.
- The kingdom became weaker with the rise of the Moamoria rebellion, and subsequently fell to repeated Burmese invasions of Assam.
- The founders of the Ahom kingdom had their own language and followed their own religion. Over the centuries, the Ahoms accepted the Hindu religion and the Assamese language.
- Today, the Ahom community is estimated to number between 4 million and 5 million.
- Sukapha developed very amiable relationships with the tribal communities living here — especially the Sutias, the Morans and the Kacharis. Intermarriage also increased assimilation processes.

Dharma Chakra Day

In News

The International Buddhist Confederation (IBC) in partnership with the Ministry of Culture, Government of India will celebrate the Asadha Poornima on July 4, 2020, as Dharma Chakra Day. It will be the annual flagship event of IBC.

- The day is celebrated to commemorate Lord Buddha's first sermon to his first five ascetic disciples.

Highlights

- The day is celebrated by the Buddhists all over the world.
- The Dharma Chakra Day means "Turning of the Wheel of Dharma".
- The day is also observed as Guru Poornima by both Buddhists and Hindus.

- During this day, devotees mark reverence to their gurus.

Dhammacakkavattana Sutta

- It refers to a record of the first teaching given by the Buddha to the five ascetics at Sarnath after he attained enlightenment.
- Here, Buddha conferred his first teaching on the Four Noble Truths: the truth of the suffering, the truths of the causes of the suffering (the afflictive mental states and the fundamental ignorance), the truth of the possibility of the cessation of suffering, and the truth of the path that leads to this cessation.

Kushok Bakula Rinpoche

In News

During Prime Minister's Ladakh visit, he recalled greatness of Ladakh's culture as well as the noble teachings of Kushok Bakula Rinpoche.

Kushok Bakula Rinpoche

- Ngawang Lobzang Thupstan Chognor, commonly known as 19th Kushok Bakula Rinpoche was a Buddhist lama.
- He is mainly known for his efforts in reviving Buddhism in Mongolia and Russia by linking them with the community of Tibetan exiles in India.
- He was born in the Matho branch of the Royal House of Ladakh, India.
- Later he served in the Parliament of India, and was deeply engaged with welfare, education and rights of the Scheduled Castes and Scheduled Tribes of India.
- In his later years, he became India's Ambassador in Mongolia.
- He was awarded the Padma Bhushan in 1988.
- The airport at Leh in the Indian region of Ladakh is named after him.

Nag River

In News

The Nagpur Bench of the Bombay High Court observed that Industrialisation and urbanisation has reduced Nag river to a cursed lady by heavily polluting it.

About

- The Nag River is a river flowing through the city of Nagpur in Maharashtra. Nagpur city derives its name from the Nag river.
- Forming a part of the Kanhan-Pench river system, the Nag River originates in Lava hills near wadi.
- The river serves as drainage for Nagpur and as a result its ecosystem is heavily polluted by urban waste from the city. The Nag River Rejuvenation was cleared by National River Conservation Directorate in November 2019.

Rising Earthquakes

In News

Eleven minor earthquakes have been recorded in and around Delhi since May, the most powerful of which happened to be of magnitude 3.4.

- These recent earthquakes have triggered discussions on the possibility of increased seismicity around Delhi, and fears of an impending big earthquake sometime soon.
- None of these apprehensions have any scientific basis.

Earthquake

- An earthquake is what happens when two blocks of the earth suddenly slip past one another.
- Sometimes an earthquake has foreshocks. These are smaller earthquakes that happen in the same place as the larger earthquake that follows. Scientists can't tell

that an earthquake is a foreshock until the larger earthquake happens.

- The largest, main earthquake is called the mainshock. Mainshocks always have aftershocks that follow. These are smaller earthquakes that occur afterwards in the same place as the mainshock. Depending on the size of the mainshock, aftershocks can continue for weeks, months, and even years after the mainshock!

The Lancet Report on India's Population

In News

According to the Lancet Report, India will be the world's most populous country by 2100.

The number of working-age adults aged 20-64 in India is projected to fall from around 762 million in 2017 to around 578 million in 2100. However, India has been forecasted to have the largest working-age population in the world by 2100.

Findings

- The global TFR in the reference scenario was forecasted to be 1.66 (95% UI 1.33-2.08) in 2100.
- In the reference scenario, the global population was projected to peak in 2064 at 9.73 billion (8.84-10.9) people and decline to 8.79 billion (6.83-11.8) in 2100.
- The reference projections for the five largest countries in 2100 were India (1.09 billion [0.72-1.71]), Nigeria (791 million [594-1056]), China (732 million [456-1499]), the USA (336 million [248-456]), and Pakistan (248 million [151-427]).
- Findings also suggest a shifting age structure in many parts of the world, with 2.37 billion (1.91-2.87) individuals older than 65 years and 1.70 billion (1.11-2.81) individuals younger than 20 years, forecasted globally in 2100.
- By 2050, 151 countries were forecasted to have a TFR lower than the replacement level

(TFR <2.1), and 183 were forecasted to have a TFR lower than replacement by 2100. 23 countries in the reference scenario, including Japan, Thailand, and Spain, were forecasted to have population declines greater than 50% from 2017 to 2100; China's population was forecasted to decline by 48.0% (-6.1 to 68.4).

- China was forecasted to become the largest economy by 2035 but in the reference scenario, the USA was forecasted to once again become the largest economy in 2098.

- Our alternative scenarios suggest that meeting the Sustainable Development Goals targets for education and contraceptive met need would result in a global population of 6.29 billion (4.82-8.73) in 2100 and a population of 6.88 billion (5.27-9.51) when assuming 99th percentile rates of change in these drivers.

Conclusion

The report suggests that the countries should move towards liberal migration policies, survival improvements at all ages, economic independence to women, and investment in the advanced technology that can compensate for the human shortage.

Though the current population levels favour India for decades to come, it will eventually see a decline in its working age population. This means, the governments must focus on augmenting the existing elderly care centres, more resources must be poured into geriatric care, and develop technological capabilities that will compensate for the less working age population.

But, the reality is, India is not thinking in that direction. Across the country, elderly care is being considered as a loss of investment. In the coming future, there will be a huge demand for elderly homes. Estimates from 2011 Census suggest that there is a need for 2.4 lakh elderly residential units in urban areas and 51,500 units in rural areas. As the elderly population increases, the requirement for these houses

increases. But, India is nowhere near having such facilities by 2100.

Any country that doesn't care for its elderly is a country with a weak moral core. When the country is aspiring to be one among the best of nations in the world, India cannot ignore its elderly. It is time, the government enacted policies for its future elderly population.

Agriculture Infrastructure Fund

In News

The Union Cabinet approved the 'Agriculture Infrastructure Fund', a Central Sector Scheme.

About

- The Union Cabinet chaired by Shri Narendra Modi had approved a new pan-India Central Sector Scheme named 'Agriculture Infrastructure Fund'.
- Under the scheme, the banks and financial institutions will provide Rs. One Lakh Crore as loans for developing agriculture infrastructure.
- The loan beneficiaries under the scheme- Primary Agricultural Credit Society (PACS), Marketing Co-operative Societies, Farmers Producers Organizations (FPO), Self Help Group (SHG), Joint Liability Groups (JLG), Multipurpose Cooperative Society, Startups, Agri-entrepreneurs, Farmers, Aggregation Infrastructure Providers and Central/State agency or Local Body sponsored by the Public-Private Partnership Project.
- For the current year Rs. 10,000 crore is sanctioned and Rs. 30,000 crore each for the next three financial years.
- The Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) scheme will facility credit guarantee coverage for eligible borrowers, for a loan up to Rs. 2 crore.
- The FPO promotion scheme of the Department of Agriculture, Cooperation and Farmers Welfare (DACFW) provides the credit guarantee for FPOs.

- The total budgetary support outflow by the Government of India is Rs. 10,736 crore.
- The moratorium under this scheme is a minimum of 6 months and a maximum of 2 years.
- The scheme is monitored and managed by an online Management Information Systems (MIS) platform.
- The MIS platform provides benefits such as scheme details, transparency of interest rates, minimum documentation, faster approval process and integration with other schemes.
- To ensure real-time monitoring and effective feed-back the National, State and District level monitoring schemes will be set up.

Features of the Scheme

- The Agriculture Infrastructure Scheme provides a medium-long term debt financing facilities.
- Provides interest subvention and financial support for projects like post-harvest management infrastructure and community farming assets.
- The interest subvention under this scheme is 3% per annum up to limit of Rs 2 crore and for seven years.
- The project provides formal credit to farm and farm processing based activities.
- Provides job opportunities in rural areas.

Sahakar Mitra

The Ministry for Agriculture & Farmers' Welfare recently launched Sahakar Mitra, a Scheme on Internship Programme (SIP).

About

- Sahakar Mitra will provide young professionals an opportunity of practical exposure and learning from the working of National Cooperative Development Corporation (NCDC) and cooperatives as a paid intern.

- It is expected to assist cooperative institutions access new and innovative ideas of young professionals while the interns gain experience of working in the field giving confidence to be self-reliant.
- It would also provide an opportunity to professionals from academic institutions to develop leadership and entrepreneurial roles through cooperatives as Farmers Producers Organizations (FPO).
- NCDC has earmarked funds for Sahakar Mitra paid internship program under which each intern will get financial support over a 4 months internship period.

Eligibility

- Professional graduates in disciplines such as agriculture and allied areas, IT etc. will be eligible for internship.
- Professionals who are pursuing or have completed their MBA degrees in agri-business, cooperation, finance, international trade, forestry, rural development, project management etc. will also be eligible.

Sree Sree JoyKali Matar temple

In News

India begins reconstruction of 300-year-old Sree Sree Joy Kali Matar Temple in Bangladesh's northern Natore district. The reconstruction is happening with Indian grant assistance of Bangladeshi Taka 97 lakhs and a total cost of Bangladeshi Taka of 1.33 Crores under the High Impact Community Development Project (HICDP) scheme of India.

About temple

- Sree Sree JoyKali Matar Temple is one of the oldest temples situated in Natore and was built at the beginning of 18th century by Dayaram Roy, Dewan of Queen Bhahani of Natore and the founder of Dighapatia Royal Family. The compound of the temple also houses a Lord Shiva temple.

- Durga and Kali Puja are celebrated every year at the temple.
- India is also funding the construction of Ramakrishna Temple, Restoration of Sree Sree Anandomoyee Kali Mata Mandir in the country.

Kashmir Saffron Gets Geographical Indication Tag

In News

The Union government issued a certificate of GI registration for the saffron grown in the Kashmir Valley.

- Pampore, the hub of saffron in Kashmir, is expected to have a bumper crop of the spice this season due to initiatives taken by the National Mission on Saffron (NMS).
- The GI certification will stop the prevalent adulteration of Kashmir saffron, thereby, authenticated saffron will fetch much better prices.
- Kashmir saffron is the only one in the world grown at an altitude of 1600 metres which differentiates it from other varieties due to its unique characteristics like longer and thicker stigma, natural deep-red colour, high aroma, bitter flavor and chemical-free processing.
- With the GI tag, Kashmir saffron will acquire more prominence in export market and will help farmers get the best price for it.

Tuting-Tidding Suture Zone (TTSZ)

In News

A study by the Wadia Institute of Himalayan Geology (WIHG), an autonomous institute of the Department of Science & Technology (DST), revealed that the Tuting-Tidding Suture Zone (TTSZ) is generating moderate earthquakes at two different depths.

Highlights of the study

- The Eastern Himalayas in Arunachal Pradesh is generating moderate earthquakes at two different depths. Low magnitude earthquakes are concentrated at 1-15 km depth, and slightly

higher than 4.0 magnitude earthquakes are mostly generated from 25-35 km depth.

- The crustal thickness in this area varies from 46.7 km beneath the Brahmaputra Valley to about 55 km in the higher elevations of Arunachal, with a marginal uplift of the contact that defines the boundary between the crust and the mantle technically called the Moho discontinuity.
- The intermediate-depth is devoid of seismicity and coincides with the zone of fluid/partial melts.
- It indicated the presence of fluid or partial melt at crustal depths at higher parts of the Lohit Valley.
- Extremely high Poisson's ratio was also obtained in the higher parts of the Lohit Valley, indicating the presence of fluid or partial melt at crustal depths.

Importance of the study

- Exhumation and growth of Himalaya is a continuous process: That results predominantly from reverse faults in which the rocks on the lower surface of a fault plane move under relatively static rocks on the upper surface, a process called underthrusting of the Indian plate beneath its Eurasian counterpart.
- This process keeps modifying the drainage patterns and landforms and is the pivotal reason for causing an immense seismic hazard in the Himalayan mountain belt and adjoining regions.
- This has necessitated assessment and characterization of earthquakes in terms of cause, depth and intensity before construction activities are initiated.

TTSZ

- It is a major part of the Eastern Himalaya, where the Himalaya takes a sharp southward bend and connects with the Indo-Burma Range.
- This part of the Arunachal Himalaya which has gained significant importance in recent

times due to the growing need of constructing roads and hydropower projects.

- Significance of the study- This detailed assessment of seismicity in this region will be helpful for planning any large scale construction in this region in the future and also improve earthquake preparedness in the area.

GS Paper II: Governance, Constitution, Polity, Social Justice and International Relations

Attorney General of India

In News

The President of India has reappointed Senior Advocate K.K. Venugopal as the Attorney General for India. His tenure was extended for a period of one year effective from 1st July 2020 to 30th June 2021.

AGI

- On advice with the Union Cabinet, the President of India appoints the Attorney General of India under Article 76 (1) of the Indian Constitution.
- The term of the Attorney General is decided by the President of India.
- The Attorney General is the Chief Legal Advisor for the Government of India.
- M.C Setalvad served as the first Attorney General for India from 1950 to 1963.

Article 164 (1 A)

In News

The Supreme Court issued notice to Madhya Pradesh Chief Minister and his government on appointing the ministers, as it violated the ceiling on the maximum strength of the council of ministers fixed under the Constitution.

- It is being argued that present strength of Council of Ministers in MP is violative of Article 164(1A).

Article 164 (1A)

- The total number of Ministers, including the Chief Minister, in the Council of Ministers in a State shall not exceed fifteen per cent of the total number of members of the Legislative Assembly of that State.
- Provided that the number of Ministers, including Chief Minister in a State shall not be less than twelve.
- Provided further that where the total number of Ministers including the Chief Minister in the Council of Ministers in any State at the commencement of the Constitution (Ninety-first Amendment) Act, 2003 exceeds the said fifteen per cent or the number specified in the first proviso, as the case may be, then, the total number of Ministers in that State shall be brought in conformity with the provisions of this clause within six months from such date as the President may by public notification appoint.

Article 164 (1B)

- A member of Legislative Assembly of a State or either House of the Legislature of a State having Legislative Council belonging to any political party who is disqualified for being a member of that House under paragraph 2 of the Tenth Schedule shall also be disqualified to be appointed as a Minister under clause (1) for duration of the period commencing from the date of his disqualification till the date on which the term of his office as such member would expire or where he contests any election to the Legislative Assembly of a State or either House of the Legislature of a State having Legislative Council, as the case may be, before the expiry of such period, till the date on which he is declared elected, whichever is earlier.”

Pradhan Mantri Garib Kalyan Yojana

In news

Pradhan Mantri Garib Kalyan Yojana extended till November 2020. Under this scheme:

- Over 80 crore people will get five kg of wheat or five kg of rice per month till November 2020.
- Every family will also get one kg chana every month until November 2020.

CoVID-19 and Food Security in India

The CoVID-19 has highlighted the problems of food, nutrition and livelihood security confronting a large number of rural people, in particular, migrants to cities.

Food security refers to the production of sufficient quantities of both high-quality protein and dietary energy. Animal protein (meat, egg, fish, etc.) and plant protein (pulses, legumes and nuts) are the two main sources of protein in general.

Brief Overview

- The World Bank estimates put the number of Indians living in extreme poverty at 176 million.
- The World Bank also posits that poorer households are more exposed to the risk of COVID-19.
- These are also the people who are most likely to face food insecurity in these times.
- On the higher end, one may refer to the numbers provided by the 2019 Multidimensional Poverty Index (MPI), which pegs the number of poor in India at 369 million.
- Further understanding of the other aspects of food security challenges can be gained through sources such as the Global Hunger Index (GHI), where India ranks low especially on the parameters of child stunting and child wasting.

- Similarly, at any given point, girl child and pregnant women are also identified as vulnerable to food insecurity.
- In the rural areas, landless labour and in the urban areas, the migrant labour need food security support. Furthermore, the nature of employment and level of wages may also create a category of people in need of support.

Major findings

- The dietary pattern has shifted away from cereals and pulses toward fruits, vegetables, processed food and food items of animal origin.
- The decline in the consumption of pulses has led to increase in malnutrition and decline in protein intake.
- Though production of pulses in the recent decade has increased but is not in pace with the increase in population.
- The cost of food is also significant to India's poorest population, and in recent years the country has suffered a persistent problem of food price inflation.
- Policy mismatch: India's food policy has focused on cereals since the Green Revolution in the mid-1960s. But today, Indian food consumption baskets have changed significantly.
- Nutrition norms as well as rising household incomes should have pushed food production away from cereals to non-cereals.
- India spends lakhs of crores to produce wheat and rice, which then doesn't get sold.

Status of food security in India

- The Public Distribution System network ensures the regular supply of food grains and other essential commodities to 800 million peoples.
- At the beginning of March 2020 India had stock of nearly 77 million tonnes (mt) of rice and wheat and 2.25 mt of pulses in public storage. This is more than three times the buffer FCI is mandated to keep.

FinMin relief package announcement (23 march 2020)

- 80 crore poor people to get 5 kg wheat or rice and 1 kg of preferred pulses for free every month for the next three months.
- 20 crore women Jan Dhan account holders to get Rs 500 per month for next three months.
- Increase in MNREGA wage to Rs 202 a day from Rs 182 to benefit 13.62 crore families.
- An ex-gratia of Rs 1,000 to 3 crore poor senior citizen, poor widows and poor disabled.
- Government to front-load Rs 2,000 paid to farmers in first week of April under existing PM Kisan Yojana to benefit 8.7 crore farmers.
- State Governments to use Building and Construction Workers Welfare Fund to provide relief to Construction Workers.

All of these measures are helpful in promoting availability, accessibility and affordability of food supplies.

State Government's packages

- Kerala Chief Minister announced that everyone in need will get free rice.
- The Haryana Government decided to provide all BPL families their monthly ration for April free of cost. All government school children and those enrolled in anganwadis were to be given dry rations.
- The Delhi Government announced that people without ration cards could also get rations-It promised to provide 7.5 kilogram of free ration.
- Uttar Pradesh will provide free foodgrains for April and May. It is providing 20 kg of wheat and 10 kg of rice per household to a list of beneficiaries.
- The Chhattisgarh Government to provide dry ration to children aged between three and six years and who were registered with anganwadi centres.
- The Jharkhand government had doubled the ration — 70 kg rice — for card holders and 10

kg of rice whose application for ration cards are pending.

- Bihar announced use of direct cash transfers (DCTs), depositing funds to the bank accounts of ration card holders (RCH). The Bihar government decided to give 5 kg rice and 1 kg pulses for three months as lockdown relief.
- The Tamil Nadu Government will give Rs. 1,000 to all ration card holders along with free rice, sugar and other essential commodities.
- The Chandigarh Administration decided to provide 6670 registered construction workers an amount of Rs.3000/- as a special relief.
- Pune Zilla Parishad decided to provide temporary ration cards to more than 80,000 undocumented people in the district. It will enable the home delivery of grains at the gram panchayat level.

China's new claim in eastern border with Bhutan

In News

China is making a new territorial claim in its eastern border with Bhutan. China has attempted to stop UNDP's Global Environment Facility (GEF) funding for Sakteng Wildlife Sanctuary (in eastern Bhutan), claiming it was disputed territory but was overruled.

- Bhutan objected to the Chinese claim, and the GEF (Global Environment Facility) council passed the project for funding.
- Bhutan has always maintained silence on its boundary negotiations with China, and it does not have any formal diplomatic relations with China.
- So far both countries have held 24 rounds of boundary talks between 1984 and 2016, concentrated mainly on north and west Bhutan regions.

India's concern

- India is concerned that Chinese presence in Doklam and other areas near Bhutan would

bring China closer to India's vulnerable "chicken's neck" or Siliguri corridor.

- Bhutan also serves as a buffer between India and China.
- In 2017, Chinese army had intruded into Doklam plateau which is Bhutanese territory, lying at the trijunction between India, Bhutan and China.

Sakteng Wildlife Sanctuary

- Located mostly in Trashigang District and just crossing the border into Samdrup Jongkhar District, Bhutan.
- It is listed as a tentative site in Bhutan's Tentative List for UNESCO inclusion.
- In July 2020, BRO was tasked with building new strategic roads to connect eastern Bhutan to western Tawang area such as Lumla-Trashigang road through Sakteng Wildlife Sanctuary.

North Eastern Region Community Resource Management Project (NERCORMP)

In News

Union Minister for Development of North Eastern Region (DoNER) has interacted with Self Help Groups associated with North Eastern Region Community Resource and Management Program (NERCORMP).

NERCORMP

- North Eastern Region Community Resource Management Project (NERCORMP) is a livelihood and rural development project aimed to transform the lives of the poor and marginalized tribal families in North East (NE) India.
- NERCORMP is a joint developmental initiative of the North Eastern Council (NEC), Ministry of DoNER, and International Fund for Agricultural Development (IFAD).
- The project operates in three states and six districts viz: Assam (Karbi Anglong and North Cachar Hills), Manipur (Ukhrul and Senapati)

and Meghalaya (West Garo Hills and West Khasi Hills).

The project adopts a holistic approach of development with two broad focus areas

- Social mobilization, organization and capacity building to tap and realize the great latent potential of the communities by employing time tested their traditional value systems and culture
- Intervene with the economic and social activities and infrastructure with predominant thrust on income generating activities to achieve economic transformation

Major project activities

- **Capacity Building of Communities and Participating Agencies:** Institutional strengthening of community institutions (CBOs) and strengthening the capacity of participating agencies viz. NGOs, Line Depts etc.
- **Economic and Livelihood Activities:** Promote viable income generation activities (IGAs) for poor households through production of field crops, horticulture, forestry, livestock, fisheries, and non-farm activities using sustainable and environmentally friendly practices.
- **Extension and Technology Transfer:** Reorient the extension services towards a client oriented and demand driven extension system, which is based on participatory extension methods. Promote the establishment of a network of village volunteers at the village or cluster level through training, who in turn will extend services at the community level.
 - **Credit:** The project provides revolving fund for credit support to the communities through SHGs, NaRM-Gs or district level Micro Credit Institutes that is developed in the project areas.
 - **Social Sector Activities:** Improving access of communities to safe drinking water and better health care and sanitation; providing awareness to the communities about different social sector schemes of the Govt. and its importance.

- **Village Roads and Rural Electrification:** Assist communities to upgrade and construct village roads for better access to their villages and facilitate movement of produces to markets and also provide electricity to a number of households through Project support for connection to the existing grids or by piloting renewable energy plants wherever feasible.

- **Community Based Bio-diversity Conservation/ Natural Resource Management & Communication:** Assisting communities to conserve their unique and natural resources and biological diversity, strengthen indigenous institutions and institutionalizing new conservation practices; strengthen the information sharing system and documentation of good practices of the project.

- **Convergence with ongoing Government schemes/programmes:** The project gives emphasis on convergence with government and non-government agencies and also facilitate to meet the shortfall of financial and technical support available in the project vis-a-vis community demands.

- **Marketing Support:** The project facilitates in selection of activities and constitutes marketing committees within the NaRM groups. The project also created marketing infrastructures like marketing & collection sheds, IVRs etc, in order to facilitate sell of both farm and non-farm products. The project also facilitates value addition of the marketable surplus and establishing value chain to match the demand and supply.

National Level Committee on Criminal Law Reform

In News

The Ministry of Home Affairs (MHA) has constituted a national level committee for reform in criminal law.

- The committee has been constituted under Ranbir Singh and several other members.

- The committee would be gathering opinions online by consulting with experts and collating material for their report to the government.

Need for Reforms

- **Colonial Era Laws:** The criminal justice system is a replica of the British colonial jurisprudence, which was designed with the purpose of ruling the nation and not serving the citizens.

- **Ineffectiveness:** The purpose of the criminal justice system was to protect the rights of the innocents and punish the guilty, but nowadays the system has become a tool of harassment of common people.

- **Pendency of Cases:** According to Economic Survey 2018-19, there are about 3.5 crore cases pending in the judicial system, especially in district and subordinate courts, which leads to actualisation of the maxim "Justice delayed is justice denied."

- **Huge Undertrials:** India has one of the world's largest number of undertrial prisoners.

- According to NCRB -Prison Statistics India (2015), 67.2% of our total prison population comprises undertrial prisoners.

- **Investigation:** Corruption, huge workload and accountability of police is a major hurdle in speedy and transparent delivery of justice.

- **Madhav Menon Committee:** It submitted its report in 2007, suggesting various recommendations on reforms in the CJSI.

- **Malimath Committee Report:** It submitted its report in 2003 on the Criminal Justice System of India (CJSI).

- The Committee had opined that the existing system "weighed in favour of the accused and did not adequately focus on justice to the victims of crime."

- It has provided various recommendations to be made in the CJSI, which were not implemented.

Background of Criminal Justice System

- The codification of criminal laws in India was done during the British rule, which more or less remains the same even in the 21st century.
- Lord Thomas Babington Macaulay is said to be the chief architect of codifications of criminal laws in India.
- Criminal law in India is governed by Indian Penal Code, 1860, Code of Criminal Procedure, 1973, and Indian Evidence Act, 1872, etc.

Way Forward

- India needs to draft a clear policy that should inform the changes to be envisaged in the existing criminal laws.
- It also needs to make simultaneous improvements in the police, prosecution, judiciary and in prisons.
- The focus of reform should be on reformative justice in order to bring all around peace in the society.

Schemes for promotion of Bulk Drugs & Medical Devices Parks

In News

Union Minister for Chemicals and Fertilizers launched four schemes of Department of Pharmaceuticals for promotion of domestic manufacturing of bulk drugs and medical devices parks in the country.

These schemes will work towards the development of Indian pharmaceutical capacities and reduce India's dependence on imports, hence making it self-reliant.

The key features of the four schemes are:

- The scheme will remain open for applications for a period of 120 days from the date of issuance of guidelines.
- The applicants will receive the approval within 90 days from the closure of application window.

- Scheme for promotion of Bulk Drug Parks aims for the establishment of 3 bulk drug parks in the country. Maximum grant-in-aid for one bulk drug park is limited to Rs.1000 crore.
- Production Linked Incentive (PLI) scheme for promoting domestic manufacturing of Medical Devices aims to boost domestic manufacturing of medical devices in four target segments. This will be achieved by offering financial incentives on sales to a maximum number of 28 selected applicants for a period of 5 years.
- The Production Linked Incentive (PLI) schemes aim to boost domestic manufacturing of 53 bulk drugs, on which India is critically dependent on imports.

Nelson Mandela International Day is observed on 18 July

In News

Nelson Mandela International Day or Mandela Day is observed on 18 July every year across the globe. The day is aimed to honour Nelson Mandela, South Africa's first black president, Nobel Prize winner, and anti-apartheid icon.

The day is designated to mark the contribution Nelson Mandela brings to peace through his active participation in resolving disputes, addressing racial issues, international democracy and reconciliation, and the promotion of human rights.

Background

- Mandela Day was first held on 18 July 2009, in New York.
- On 10 November 2009, the UNGA adopted a resolution A/RES/64/13 to recognize 18 July as the "International Day of Nelson Mandela".
- UNGA also recognized the period from 2019 to 2028 as the Nelson Mandela Decade of Peace.
- UNGA honoured Mandela's humility, forgiveness and compassion, and his contribution to the struggle for democracy and the promotion of a culture of peace throughout the world.

Nelson Mandela

- Nelson Rolihlahla Mandela was born in the Eastern Cape, South Africa on 18 July 1918.
- In 1942, he began his career in politics.
- In 1944, he joined the African National Congress. Mandela was accused of treason in South Africa and was arrested on 5 December 1956.
- Nelson Mandela served as the President of South Africa from 10 May 1994 to 16 June 1999.
- Mandela stepped down after one term as President. He dedicated his life to fighting for human rights.
- On 5 December 2013, he passed away in Johannesburg. Mandela was deeply concerned with issues related to racism.

Union Cabinet Approves National Education Policy 2020

The Union Cabinet has approved the National Education Policy 2020.

- The National Education Policy 2020 will replace the thirty-four year old National Policy on Education (NPE), 1986.
- National Education Policy 2020 is the first education policy of the 21st century and aims to bring transformational reforms in both school and higher education sectors.
- The new policy is based on the foundational pillars of Access, Equity, Quality, Affordability and Accountability.
- It has a target of 50% Gross Enrollment Ratio by 2035 and provision for multiple entry and exits.

Important highlights

1. Schooling starts at the age of 3 years now

The New Education Policy expands age group 6-14 years of mandatory schooling to 3-18 years of schooling. The NEP introduces hitherto uncovered three years of pre-schooling, age

group of 3-6 years under the school curriculum. The new system will have 12 years of schooling with three years of Anganwadi/ pre-schooling.

With an emphasis on Early Childhood Care and Education (ECCE), the 10+2 structure of school curriculum is to be replaced by a 5+3+3+4 curricular structure corresponding to ages 3-8, 8-11, 11-14, and 14-18 years respectively.

2. Mother tongue as medium of instruction

The NEP puts focus on students' mother tongue as the medium of instruction even as it sticks to the 'three language formula' but also mandates that no language would be imposed on anyone. The NEP only recommends the mother tongue as medium of instruction, and not make it compulsory.

"Wherever possible, the medium of instruction until at least Grade 5, but preferably till Grade 8 and beyond, will be the home language, mother tongue, local language or the regional language.

Thereafter, the home or local language shall continue to be taught as a language wherever possible. This will be followed by both public and private schools," the policy states.

3. NO UGC, AICTE, NCTE

Higher Education Commission of India (HECI) will be set up as a single overarching umbrella body for entire higher education, excluding medical and legal education. Public and private higher education institutions will be governed by the same set of norms for regulation, accreditation and academic standards.

Govt will phase out the affiliation of colleges in 15 years and a stage-wise mechanism is to be established for granting graded autonomy to colleges.

4. Science, arts, commerce gets blurred

Under NEP 2020, there will be no rigid separations between arts and sciences, between



curricular and extra-curricular activities, between vocational and academic streams. Students can select subjects of their liking across the streams. Vocational education will start in schools from the 6th grade, and will include internships.

5. FYUP Programme Returns & No More Dropouts

Under the NEP, undergraduate degree will be of either 3 or 4-year duration with multiple exit options within this period. College will be mandated to give certificate after completing 1 year in a discipline or field including vocational and professional areas, a diploma after 2 years of study, or a Bachelor's degree after a 3-year programme.

Govt will also establish an Academic Bank of Credit for digitally storing academic credits earned from different HEIs so that these can be transferred and counted towards final degree earned.

NETF

An autonomous body, the National Educational Technology Forum (NETF), will be created to provide a platform for the free exchange of ideas on the use of technology to enhance learning, assessment, planning, administration and so on, both for school and higher education.

One of the permanent tasks of the NETF will be to categorise emergent technologies based on their potential and estimated timeframe for disruption, and to periodically present this analysis to MHRD. Based on these inputs, MHRD will formally identify those technologies whose emergence demands responses from the education system. Content will be available in regional languages also.

PM's Awards for Excellence in Public Administration

In News

Union Minister of Personnel launched the revamped PM's Awards for Excellence in Public Administration and the web portal www.pmawards.gov.in, which for the very first time seeks to recognize the efforts of District level officials in the Namami Gange Programme.

About

- The Scheme has been revamped to recognize the performance of the District Collectors towards outcome indicators, economic development, peoples' participation and redressal of public grievances.
- Nominations have been called in four major categories:
 - (i) District Performance Indicators Programme
 - (ii) Innovation General Category
 - (iii) Aspirational Districts Program
 - (iv) Namami Gange Program

The Government of India instituted "The Prime Minister's Awards for Excellence in Public Administration" in the year 2006 to recognize the extraordinary work done by Districts/Organizations of the Central and State Governments.

In the meeting of the National Ganga Council held in December, 2019 at Kanpur under the chairmanship of the Prime Minister, it was decided to create a "Good Performance for Ganga Rejuvenation" award for the Ganga districts under the Prime Minister's Awards for Excellence for Public Administration Scheme.

PM SVANidhi Scheme

In News

An MoU was signed between Ministry of Housing & Urban Affairs and Small Industries Development Bank of India (SIDBI) to engage SIDBI as Implementation Agency for the scheme.

PM SVANidhi

- PM SVANidhi - Pradhan Mantri Street Vendor's Atmanirbhar Nidhi is a micro-credit facility scheme for providing affordable loan to street vendors. Duration of scheme is till March 2022.
- It is aimed at enabling street vendors to resume their livelihoods that have been adversely affected due to COVID-19 lockdown.
- Over 50 lakh street vendors, who had been vending on or before 24th March 2020, in urban areas will get benefit.
- Street vendors belonging to surrounding peri-urban or rural areas are being included as beneficiaries under the urban livelihoods programme for the first time.
- Vendors can avail a working capital loan of upto Rs 10000, with loan tenure of one year.
- On timely repayment of loan, interest subsidy at rate of 7% per annum will be credited.
- Based on timely payments vendor will develop credible credit score that makes them eligible for higher amount of term loan.
- Incentive for digital transactions through monthly cash back.
- MoHUA in collaboration with State Governments and other stakeholders will also launch a capacity building and financial literacy programme.

Role of SIDBI

- SIDBI will manage the credit guarantee to the lending institutions through Credit Guarantee Fund Trust for Micro and Small Enterprises.

- SIDBI will leverage the network of lending Institutions like Scheduled Commercial Banks, NBFC, Micro Finance Institutions (MFIs), Small Finance Banks, etc. for its implementation.
 - It is for the first time that MFIs/ NBFCs/ SHG Banks have been allowed in a scheme for urban poor due to their ground level presence and proximity to urban poor.
 - It will also develop a customized and integrated IT Platform.
- SIDBI acts as principal Financial Institution for promotion, financing and development of MSME sector & for coordination of functions of institutions engaged in similar activities.

Central Vista Redevelopment Project

In News

Seven firms have evinced interest in the construction of the new Parliament building after pre-qualification bids invited by the Centre for its ambitious Central Vista redevelopment project closed recently.

What is Central Vista?

The Central Vista is a 3 km stretch in the heart of New Delhi that runs from the Rashtrapati Bhavan to India Gate. It is flanked by large green spaces and significant structures such as Parliament, the Secretariat buildings and the National Archives.

What is the redevelopment project?

The Central government is redeveloping the three-km-long Central Vista and Parliament. A common Central secretariat will be constructed for all ministries that are currently spread over many buildings across Delhi.

What are the government's deadlines?

The new Parliament has to be ready by March 2022 the 75th year of India's Independence. The revamped Central Vista, complete with public amenities and parking, has to be ready by November 2021 and the new common Central secretariat by March 2024.

What will happen to existing buildings?

The Parliament House and North and South Blocks will not be demolished, but their usage may change. The rest of the buildings that came up post-1947, including Shastri Bhavan and Krishi Bhavan, are likely to be demolished.

India UNSC Win

In News

India was elected in June 2020, to the UN Security Council as nonpermanent member with 184 of the 192 votes for a two-year term starting January 1, 2021.

India, with its unopposed victory, will hope to use its eighth term as a non-permanent member to further bolster its claim to a permanent seat with the avowed goal of forging a “new orientation for a reformed multilateral system”.

Election for Non-permanent Member

- The 193 UN members countries were vote to elect five nonpermanent members in a phased manner, for the first time in the world body's 75-year history.
- They were allowed on to the floor of the general assembly, where the voting takes place, in smaller groups or 20 or so because of the social distancing norms in place because of COVID-19.
- Five new members – India, Ireland, Mexico, Norway and Kenya – will join the UNSC on January 1, 2021, for a two-year term replacing Indonesia, South Africa, the Dominican Republic, Belgium and Germany. As per rules, five nonpermanent members out of 10 are elected each year for two years.
- The distribution of the 10 non-permanent seats are based on the regional basis – two for the Latin American and Caribbean States; and two for Western European and other States and five for African and Asian States; one for the Eastern European States.

- A two-thirds majority of ballots of Member States that are present and voting in the Assembly is needed for the country to be elected to the UNSC.

India's permanent membership

- For decades, India has sought the permanent membership at the UNSC. To reach this goal, India has used its non-permanent status as a stepping stone to prepare a bid for the permanent candidacy. In the past, India has held the same position seven times. For years, New Delhi has worked closely with the so-called G4 group, with Brazil, Japan, and Germany, to push for structural reforms within the UNSC.
- UNSC reform has been considered necessary for decades. Experts believe that a lack of reforms has produced a “highly unequal and inefficient” Security Council. The five permanent members (P5) possess permanent seats and have the privilege of the veto whilst the status of non-permanent members is low. The current structuring of the UNSC converges most of the power to the P5, while nonpermanent members of the council have been “relegated to a role of rubberstamping.”
- Still, India's election as a nonpermanent member for another two-year term helps the country's in its attempt to push for the association's reforms and solidify its image as a major power that should be accommodated by the permanent members of the assembly.

National Financial Reporting Authority (NFRA)

In News

The National Financial Reporting Authority (NFRA) was constituted on 01st October, 2018 by the Government of India under Sub Section (1) of section 132 of the Companies Act, 2013.

Functions and Duties

- Recommend accounting and auditing policies and standards to be adopted by companies for approval by the Central Government.



- Monitor and enforce compliance with accounting standards and auditing standards.
- Oversee the quality of service of the professions associated with ensuring compliance with such standards and suggest measures for improvement in the quality of service.
- Perform such other functions and duties as may be necessary or incidental to the aforesaid functions and duties.
- Authority shall protect the public interest and the interests of investors, creditors and others associated with the companies or bodies.

Companies and Bodies Corporate Governed by the Authority

- (a) Companies whose securities are listed on any stock exchange in India or outside India.
- (b) Unlisted public companies having paid-up capital of not less than rupees five hundred crores or having annual turnover of not less than rupees one thousand crores or having, in aggregate, outstanding loans, debentures and deposits of not less than rupees five hundred crores as on the 31st March of immediately preceding financial year.
- (c) Insurance companies, banking companies, companies engaged in the generation or supply of electricity, companies governed by any special Act for the time being in force or bodies corporate incorporated by an Act in accordance with clauses (b), (c), (d), (e) and (f) of sub-section (4) of section 1 of the Act.
- (d) Anybody corporate or company or person, or any class of bodies corporate or companies or persons, on a reference made to the Authority by the Central Government in public interest.
- (e) A body corporate incorporated or registered outside India, which is a subsidiary or associate company of any company or body corporate incorporated or registered in India as referred to in clauses (a) to (d), if the income or networth of such subsidiary or associate company exceeds twenty per cent. of the consolidated income or consolidated networth of such company or the

body corporate, as the case may be, referred to in clauses (a) to (d).

Renaming India as 'Bharat'

In News

A petition has been filed in the Supreme Court seeking removal of 'India' as the name of the country and keeping just Bharat as the solitary identity of the nation.

- It sought an amendment to Article 1 of the Constitution and claimed that such an amendment will “ensure the citizens of this country to get over the colonial past”.
- The petitioner argued that the removal of the English name, though appears symbolic, will instil a sense of pride in our own nationality, especially for the future generations to come. In fact, the word India being replaced with Bharat would justify the hard-fought freedom by our ancestors.
- Referring to the 1948 Constituent Assembly debate on Article 1 of the then draft constitution, the plea said even at that time there was a “strong wave” in favour of naming the country as ‘Bharat’ or ‘Hindustan’.
- Supreme Court said that it can't do it as “India is already called Bharat in Article 1 of Indian Constitution”. The court, however, allowed the petitioner to make a representation to the government.

No postal ballot for those above 65

In News

- The EC had earlier recommended extending the postal ballot facility to electors over 65 years as the age group had been termed most vulnerable to COVID--19.
- The Law Ministry also notified the change to the Conduct of Election Rules, 1961 on June 19, extending the facility to electors above 65 years, as opposed to the existing provision for above 80 years.
- However, on July 16, the EC announced that it would not be extending the facility to electors

of age 65 and above due to logistical, staff and safety protocol related constraints.

About

- Postal voting is voting in an election where ballot papers are distributed to electors (and typically returned) by post, in contrast to electors voting in person at a polling station via an electronic voting system (EVM).
- Through postal ballot facility, a voter can cast his/her vote remotely by recording his/her preference on the ballot paper and sends it back to the election officer before counting.
- When the counting of votes commences, these postal votes are counted first before the counting of votes from the EVMs of all other voters.

Who can avail postal ballot facility?

Only certain categories of people are eligible to register as postal voters.

- Members of the armed forces like the Army, Navy and Air Force.
- Members of the armed police force of a state (serving outside the state)
- Government employees posted outside India and their spouses are entitled to vote only by post.
- Voters under preventive detention can also vote only by post.

Chengdu consulate

In News

China ordered the U.S. to shut Chengdu consulate in retaliation for one of its missions in the US being shuttered.

U.S. -China ties have deteriorated sharply this year over issues ranging from the pandemic and telecoms--gear maker Huawei to China's territorial claims in the South China Sea and its clampdown on Hong Kong

Chengdu consular

- The United States Consulate General at Chengdu opened on October 16, 1985.
- The Chengdu consular district is made up of the Provinces of Sichuan, Yunnan, and Guizhou, as well as the Tibet Autonomous Region and Chongqing City Municipality.

Women officers to get permanent commission in Army

In News

Supreme Court ruled that women officers, who have joined the Indian Army through Short Service Commission (SSC), are entitled to a permanent commission, the defence ministry issued a formal sanction letter in this regard.

The order specifies the grant of permanent commission to SSC women officers in all the 10 streams in which they presently serve.

10 streams: Army Air Defence (AAD), Signals, Engineers, Army Aviation, Electronics and Mechanical Engineers (EME), Army Service Corps (ASC), Army Ordnance Corps (AOC), and Intelligence Corps in addition to the existing streams of Judge and Advocate General (JAG) and Army Educational Corps (AEC).

Supreme court directives

- In February this year the Supreme Court allowed permanent commission and command roles to women officers.
- The order led the Army to work on tweaking its existing policies on issues like training, physical endurance and postings and service courses to bring about equilibrium in service conditions for male and female officers.

Selection Board

- The Selection Board will be scheduled as soon as all affected SSC Women Officers exercise their option and complete requisite documentation.

- The Indian Army is committed to provide equal opportunities to all personnel including Women Officers to serve the nation.

Women in Army

- Till now the percentage of women in the Indian Army was only 3.89 per cent, Navy 6.7 per cent and Air Force 13.28 per cent, excluding the medical corps, dental corps and Military Nursing Service.
- Entry of women in the Army till now has only been through Short Service Commission (SSC) but till now they could not serve beyond 14 years.
- There are over 300 women officers who are serving for more than 14 years on extension.
- Bizarre reasoning like motherhood, physiological limitation, childcare and troops from rural backgrounds not accepting women in command roles were cited by the government, but was junked by the Supreme Court while giving permanent status to women in Army.

Rosalind Franklin

100th birth anniversary (25 July 2020) of Rosalind Franklin, a leading virologist of her time was observed recently.

- Rosalind Franklin (1920 – 1958) was an English chemist and X-ray crystallographer whose work was central to the understanding of the molecular structures of DNA, RNA, viruses, coal, and graphite.
- She is best known for her work on the X-ray diffraction images of DNA, particularly Photo 51, which led to the discovery of the DNA double helix for which James Watson, Francis Crick and Maurice Wilkins shared the Nobel Prize in Physiology or Medicine in 1962.
- She would have ideally been awarded a Nobel Prize in Chemistry, but the Nobel Committee generally did not make posthumous nominations.

Photo 51

- Photo 51 is an X-ray diffraction image of a paracrystalline gel composed of DNA fiber taken by Raymond Gosling, working under the supervision of Rosalind Franklin in May 1952.
- The image was tagged "photo 51" because it was the 51st diffraction photograph that Franklin and Gosling had taken. It was critical evidence in identifying the structure of DNA.

India Ideas Summit 2020

In News

The India Ideas Summit was held virtually by the U.S. Chamber of Commerce on July 22, 2020.

The U.S.-India Business Council's India Ideas Summit has become an institution, convening leaders in business, government and society from across the United States and India.

Aim

The Summit will witness discussions on areas including India-US cooperation and future of the relation between the two countries in a post pandemic world.

Mission

- The Council's mission is to promote trade relations between India and the United States.
- Council supports pro-growth policies and increased bilateral engagement, focusing in two-way trade.

Vision

- To create an inclusive bilateral trade environment between India and the United States by serving as the voice of industry, linking governments to businesses, and supporting long-term commercial partnerships.
- This will nurture the spirit of entrepreneurship, create jobs, and successfully contribute to the global economy.

Theme

The theme for this year's India Ideas Summit is 'Building a Better Future'.

Significance

The virtual Summit will feature high-level presence from Indian and US government policymakers, state-level officials, and thought leaders from business and society.

US position

U.S. Secretary of State Mike Pompeo said –

- India and US should work together to face the 'challenge' of the Chinese Communist Party (CPC).
- Examples of India and the U.S. working together including the Quad and the World Intellectual Property Organisation elections earlier this year (in which a Singaporean candidate for director won against a Chinese candidate).

India's position

- Prime Minister invited U.S. companies to invest in India's healthcare, infrastructure, defence, energy, farm and insurance sectors, saying the country offers openness and opportunities.
- India and US should work together in areas such as – maritime security, counter-terrorism, connectivity, innovation and technology, how to respond in the case of corona to pandemics etc.

Nabam Rebia Judgement

In News

The Constitution Bench judgment of the Supreme Court in Nabam Rebia versus Deputy Speaker on July 13, 2016, held that a Governor is bound to convene a meeting of the Assembly for a floor test on the recommendation of the Cabinet.

Key highlights of the Judgement

- A Governor cannot employ his "discretion", and should strictly abide by the "aid and advice" of the Cabinet to summon the Assembly for a floor test.
- The Governor can summon, prorogue and dissolve the House only on the aid and advice of the Council of Ministers with the Chief Minister as the head. And not at his own.
- Even the Constituent Assembly was wary of extending the Governor's discretion. Though the draft Constitution had vested the Governor with the discretion to summon and dissolve, it was latter omitted by the framers of the Constitution.
- Article 163 of the Constitution does not give the Governor a "general discretionary power to act against or without the advice of his Council of Ministers".
- Governor's discretionary powers are limited to specified areas like giving assent or withholding/referring a Bill to the President or appointment of a Chief Minister or dismissal of a government which has lost of confidence but refuses to quit, etc.

Present Relevance

The judgment is significant in the present deadlock between Rajasthan Governor Kalraj Mishra and Chief Minister Ashok Gehlot over the summoning of an Assembly session for a floor test.

Vaccine Nationalism

In News

Hundreds of COVID-19 vaccine candidates are currently being developed. The way emerging vaccines will be distributed to those who need them is not yet clear.

- The United States has now twice indicated that it would like to secure priority access to doses of COVID-19 vaccine.
- Other countries, including India and Russia, have taken similar stances. This prioritisation of

domestic markets has become known as vaccine nationalism.

- India, alongside the US and Russia, chose not to join the Access to COVID-19 Tools Accelerator, which was launched by the World Health Organization to promote collaboration among countries in the development and distribution of COVID-19 vaccines and treatments

Vaccine Nationalism and Its Working

- Vaccine nationalism occurs when a country manages to secure doses of vaccine for its own citizens or residents before they are made available in other countries. This is done through pre-purchase agreements between a government and a vaccine manufacturer.
- Vaccine nationalism is not new. During the early stages of the 2009 H1N1 flu pandemic, some of the wealthiest countries entered into pre-purchase agreements with several pharmaceutical companies working on H1N1 vaccines.

Side-Effects of Vaccine Nationalism

- The most immediate effect of vaccine nationalism is that it further disadvantages countries with fewer resources and bargaining power.
- This 'vaccine nationalism' is not only morally reprehensible; it is the wrong way to reduce transmission globally. And global transmission matters: If countries with a large number of cases lag in obtaining the vaccine and other medicines, the disease will continue to disrupt global supply chains and, as a result, economies around the world.
- The race to defeat which should be based on "global public good" The other is competitive, a battle between nations that's being described as 'vaccine nationalism.'
- Vaccine nationalism also runs against the fundamental principles of vaccine development and global public health. Most vaccine

development projects involve several parties from multiple countries.

Gopalakrishnan Committee report on Non-Personal Data (NPD)

In News

Kris Gopalakrishnan-led panel shares insights of regulatory aspects of NPD, harnessing economic value of data and various legal aspects related to digital regulatory framework

Committee was set up to:

- study various issues relating to NPD.
- make specific suggestions on regulation of NPD.

Highlights

- Non-personal data refers to information that is not related to an identified or identifiable natural person.
- This would include data on weather conditions, from sensors installed on industrial machines, from public infrastructure, and so on.
- It also includes data which was initially personal, but were later made anonymous, according to the draft definition.
- It is to be noted that the Personal Data Protection (PDP) Bill 2019 is still in process.
- The Gopalakrishnan-led panel in its report has defined non-personal data as information which is not personal as defined in the above bill.
- Potential of data - The report has collated information from various studies in this regard.
- It has shown that companies with the largest data pools have "outsized, unbeatable technological advantages".
- A few startups from the 1990s and 2000s have gone on to become USD 1 trillion market capitalisation multinational corporations.
- This is mainly because of their ability to collect and analyse data of users.

- Reportedly, Google and Facebook together control about 60% of the Internet advertising market in the USA.
- Amazon had a 37% share of the online e-commerce market in the USA in 2019.

What has the committee called for?

- There is a need to create a data-sharing framework.
- It thus calls for sharing non-personal data collected by both government and private organizations with citizens.
- This is to ensure that community data is available for social, public and economic value creation.
- Also, it simultaneously addresses privacy concerns and prevents collective harms arising from processing of non-personal data.
- This is likely to lead to increased transparency, better quality services, improved efficiencies, and more innovation.
- The shared Non-Personal Data may be useful for Indian entrepreneurs.
- It would help them develop new and innovative services and products from which citizens may benefit.
- The report puts forward useful suggestions on the need to set up a 'non-personal data regulatory authority.'
- This is to manage India's vast and emerging data space, while nurturing a creative and egalitarian technology architecture.

GS III :Technology, Economic Development, Bio-diversity, Environment, Security and Disaster Management

Goods and Service Tax Regime Completes 3 Years

In news

The GST regime, which has been the biggest tax reform for indirect taxation, completes three years on July 1, 2020. GST was unveiled on July 1, 2017.

It was aimed at subsuming multiple central and state taxes into one tax, into a "One Nation One Tax" and facilitating the ease of doing business.

GST

- This law has integrated India into a single, common market by replacing the multiple indirect taxes, including central excise duty, services tax, additional customs duty, surcharges, state-level value added tax and octroi, into a simple, transparent and technology-driven tax regime.
- GST is a destination-based tax on consumption of goods and services. It is levied at all stages, right from manufacturing to final consumption.
- The government currently charges four GST rates, depending on different product categories. The four GST rate slabs are 5 per cent, 12 per cent, 18 per cent and 28 per cent.
- Petroleum products, alcoholic drinks and electricity do not come under the GST ambit. These are taxed separately by the respective state governments, as per the previous tax system.

Types of GST

1. Central Goods & Service Tax (CGST)

CGST subsumes central taxations and levies such as Central Sales Tax, Central Excise Duty, Services Tax, Excise Duty under Medical & Toiletries Preparation Act, Additional Excise Duties Countervailing Duty (CVD), Additional Custom Duty and other centralized taxations.

2. State Goods & Services Tax (SGST)

SGST subsumes various state taxes and levies such as State Sales Tax, Luxury Tax, Entertainment Tax, Levies on Lottery, Entry Tax, Octroi and other taxations connected with the movement of commodities and services under state governments. Each state has its own State Authority to collect SGST and the revenue thus collected belongs to the State Government.

3. Integrated Goods & Services Tax (IGST)

Integrated Goods & Services Tax (IGST) focuses on the concept of one tax, one nation. It is levied on the supply of commodities and services from one state to another. For example, IGST will be applicable on services rendered in Gujarat for consumers based in Maharashtra.

4. Union Territory Goods & Services Tax (UTGST)

The union territories come under the ambit of a specialized taxation regimen called Union Territory Goods and Services Tax (UTGST). The UTGST subsumes the various taxations, levies and duties in the Union Territories.

GST Council

- The GST Council is the governing body of GST. It is headed by the Union Finance Minister and comprises finance ministers of all states.
- The GST Council is tasked with overseeing the implementation of GST and deciding on tax rates for various items.

REDD+ results

In news

Uganda become the first African nation to submit results for REDD+ (Reducing emissions from deforestation and forest degradation) to the United Nations Framework Convention on Climate Change.

This enables Uganda to obtain results-based finance for implementation of REDD+ activities. It will receive funds through the green climate fund's forest conservation scheme.

Result based finance

In order to obtain and receive results-based finance for results from the implementation of REDD+ activities, developing country Parties should have the following in place:

- A national strategy or action plan
- An assessed forest reference emission level and/or forest reference level
- A national forest monitoring system
- A system for providing information on how the safeguards are being addressed and respected
- And the results-based actions should also be fully measured, reported and verified (MRV).

Background

- Uganda's forest cover had depleted to 8 per cent from 24 per cent in the 1990s, largely because of human encroachment, including for charcoal, timber and agriculture.
- One concern was that Uganda's forested area could have disappeared within the coming century, if deforestation was not reigned in.

What is REDD+?

It is a mechanism developed by the parties to the UNFCCC to reduce emissions from deforestation and forest degradation.

REDD+ in Uganda

- REDD+ program in Uganda forms a part of the country's National Climate Change Policy that aims for a harmonised and coordinated approach towards a climate-resilient and low-carbon development path for sustainable development.
- The country had launched its REDD+ programme in 2013.
- The REDD+ strategy, launched in 2017, included developing plans and options for forest management to reduce carbon emissions.

REDD+ in India

- India has played an important role in REDD+ negotiations and has been instrumental in shaping REDD+ mechanism.
- India has proposed National REDD+ Strategy in 2018 for achieving REDD+ objectives.
- Strategy covers all trees within forest areas and tree outside forest.

Namami Gange Project/ National Mission for Clean Ganga

In News

The World Bank has approved a five-year loan to the Namami Gange project to develop and improve infrastructure projects to abate pollution in the river basin.

Namami Gange Programme

'Namami Gange Programme', is an Integrated Conservation Mission, approved as 'Flagship Programme' by the Union Government in June 2014 to accomplish the twin objectives of effective abatement of pollution, conservation and rejuvenation of National River Ganga.

Its implementation has been divided into Entry-Level Activities (for immediate visible impact), Medium-Term Activities (to be implemented within 5 years of time frame) and Long-Term Activities (to be implemented within 10 years).

Main pillars of the Namami Gange Programme are:

- Sewerage Treatment Infrastructure
- River-Front Development
- River-Surface Cleaning
- Bio-Diversity
- Afforestation
- Public Awareness
- Industrial Effluent Monitoring
- Ganga Gram

World Bank

The World Bank is an international financial institution that provides loans and grants to the governments of poorer countries for the purpose of pursuing capital projects. It comprises two institutions:

1. The International Bank for Reconstruction and Development.
2. The International Development Association.

G4 flu virus

In News

G4 swine flu viruses in China described in the PNAS report have a mix of genes from influenza viruses found in humans, birds and pigs.

G4 viruses likely resulted from a process called "reassortment," which occurs when two or more influenza viruses infect a single host and exchange genetic material.

Findings

- G4 viruses can spread via direct contact or via respiratory droplets.
- The 2009 H1N1 pandemic arose from a reassortment event between pigs, birds and human influenza A viruses.
- Pigs have been identified as a sort of "mixing vessel" for reassortment to occur.
- Pigs are susceptible to infection with influenza viruses found in pigs, birds and humans.

PNAS

Proceedings of the National Academy of Sciences of the United States of America (PNAS) is a peer-reviewed multidisciplinary scientific journal. It is the official journal of the National Academy of Sciences, published since 1915, and publishes original research, scientific reviews, commentaries, and letters.

'Accelerate Vigyan' scheme

The Science and Engineering Research Board has launched a new scheme called 'Accelerate Vigyan' to provide a single platform for research internships, capacity building programs and workshops across the country.

Objectives

- Encourage high-end scientific research and prepare scientific manpower.
- Accelerate Vigyan will initiate and strengthen mechanisms for identifying research potential, mentoring, training and hands-on workshop on a national scale.

Scheme

Under the AV scheme, SERB has invited applications from Faculty or Scientists working in Central institutions of higher learning and research such as IITs, IISc, IISER'S, NITs and other institutions/laboratories of eminence like CSIR, ICAR, ICMR, in the country as Event Organizers (EO) for organizing high-end Workshops 'KARYASHALA' and Research Internships 'VRITIKA' for the winter season (Dec 2020-Jan 2021) of its ABHYAAS program.

Components

- ABHYAAS: To enable and groom potential PG/PhD students by developing their research skills in selected areas across different disciplines or fields.
- SAMMOHAN: To encourage, aggregate and consolidate all scientific interactions in the

country under one common roof. It has two parts, SAYONJIKA and SANGOSHTI.

SERB

- Science and Engineering Research Board (SERB) is a statutory body under the Department of Science and Technology, GoI.
- It was established by an Act of the Parliament of India in 2009 (SERB ACT,2008).
- It is headquartered in New Delhi.

Special Liquidity Scheme for NBFCs by Reserve Bank of India

In News

The Reserve Bank of India (RBI) laid down the eligibility criteria for non-bank financiers and mortgage lenders to utilize a special liquidity scheme that was approved by the Union cabinet.

Details

To borrow funds, the RBI mandate that non-banking financial companies (NBFCs) and housing finance companies (HFCs) should not have net non-performing assets of more than 6% as on 31 March 2019 and the funds raised will have to be solely used to extinguish existing liabilities.

Scheme aims to help non-banking finance companies (NBFCs) and housing finance companies (HFCs) to improve their liquidity position and avoid any potential systematic risk to the financial sector.

Under the government proposal, a special purpose vehicle (SPV) has been set up to manage a stressed asset fund where the securities will be guaranteed by the government. The SPV would issue securities of up to ₹ 30,000 crore and these would be purchased by RBI.

The instruments will be commercial papers (CPs) and non-convertible debentures (NCDs)

with a residual maturity of not more than three months and rated as investment grade.

Non-Banking Financial Company

- A non-bank financial company is a financial institution that does not have a full banking license or is not supervised by a national or international banking regulatory agency.
- NBFC is a company registered under the Companies Act, 1956.
- It is engaged in the business of loans and advances, acquisition of shares/stocks/bonds/debentures/securities issued by Government or local authority or other marketable securities of a like nature, leasing, hire-purchase, insurance business, chit business.
- NBFC cannot accept demand deposits.
- NBFCs do not form part of the payment and settlement system and cannot issue cheques drawn on itself.
- Deposit insurance facility of Deposit Insurance and Credit Guarantee Corporation is not available to depositors of NBFCs

Border Adjustment Tax

In News

India is mulling a new tax on all imports to aid domestic manufacturing, a plan that resurfaced after border tensions with China as part of the Modi administration's self-reliance pitch.

BAT

- BAT (also known as a border-adjusted tax, destination tax, destination-based cash flow tax or a border tax adjustment) is a tax on goods based on location of final consumption rather than production.
- BAT is a duty that is proposed to be imposed on imported goods in addition to the customs levy that gets charged at the port of entry.
- The idea is to bring similar goods in the imported and domestic baskets at par.

Proposed mechanism

The Border Adjustment Tax is proposed to be a non-creditable levy on imported goods. The idea is to bring similar goods in the imported and domestic baskets at par.

The Indian industry has been complaining to the government about domestic taxes like electricity duty, duties on fuel, clean energy cess, mandi tax, royalties, biodiversity fees that get charged on domestically produced goods as these duties get embedded into the product. But many imported goods do not get loaded with such levies in their respective country of origin and this gives such products price advantage in the Indian market.

The Commerce and Industry ministry has agreed that this demand of the Indian industry is reasonable and is convinced that the domestic uncreditable duties on 'Made In India' goods put them at disadvantage vis-a-vis similar imported products.

Trade Effects

- In theory, BAT is trade neutral: the stronger domestic currency would make exports more expensive internationally, lowering demand for exported products while reducing the costs incurred by domestic firms in purchasing goods and services in foreign markets, helping importers.
- Thus, the anticipated strengthening of the domestic currency effectively neutralizes the BAT, resulting in a trade-neutral outcome. However other studies indicate that currency adjustments may not always flow through to price adjustments, shifting the incidence of the tax to consumers and/or producers.

Impact on Exports

Such a BAT would not make a significant change in improving the situation for Indian producers to become part of global value chains. In fact, it could be harmful.

- Over 30% of India's merchandise imports are intermediate goods, used for exports and domestic sales.
- OECD data shows that Indian exports from a majority of its industrial sectors have an import content ranging from 20% to 40%.
- To the extent import—and domestic—prices increase due to the tax, this would raise slightly the cost of domestic and imported inputs in Indian exports. This could make it more difficult for Indian products to compete with other nations vying to replace their competition.

India's first lichen park

In News

Uttarakhand forest department has developed India's first lichen park in Kumaon's Munsiyari, Pithoragarh district.

- The project aims to study the distribution of different lichen species, their habitat, their morphological and physiological aspects, surveying and literature review, the establishment of species, current threats to their habitat including anthropological and climatic factors, and coming up with suitable conservation strategies and protection strategies.
- These Jurassic-era lichen species are used in food, perfumes, dyes and traditional medicines.
- Lichens are found in the Himalayas up to 5000 metres are important species as they are the best bioindicators of the pollution levels.
- Uttarakhand has more than 600 species of lichens followed by Himachal Pradesh and Jammu and Kashmir with 503 and 386 species respectively.
- Lichen need pure air to grow. If pollution levels increase in a certain area, the lichen species decline there.
- One of the lichen species called Jhula Ghas is used as a flavouring agent in Hyderabadi biryani and some non-vegetarian dishes in North Indian cuisine.

- In Uttarakhand lichens are found in Chamoli, Champawat, Pithoragarh, Nainital, Dehradun region. Some lichen species found in the state include Parmotrema pertatum, Usnea lognissima, Lecanora subfuseescens, Sarcogyne privigna, Arthonia impolitella, Acarospora fusca, Acarospora oxytona, Polysporina dubia and so on.

Lichen

- A lichen is a composite organism that arises from algae or cyanobacteria living among filaments of multiple fungi species in a mutualistic relationship. They come in many colours, sizes and forms.
- The properties are sometimes plant-like but lichens are not plants. Lichens may have tiny, leafless branches, flat leaf-like structures.
- They are one of the oldest living things, grow in a wide range of habitat including some of the most extreme conditions like the arctic, tundra, hot dry desert rocky coasts, toxic heaps, roofs bare rocks, walls, exposed soil surfaces are some of the places where it can be easily found.

NAFTA is now USMCA

In News

In 2018, the United States, Mexico, and Canada renegotiated the North American Free Trade Agreement (NAFTA). The new deal is now called the United States-Mexico-Canada Agreement (USMCA).

- The USMCA is an updated version of the nearly 25-year-old, trillion-dollar NAFTA.
- It includes major changes on cars and new policies on labor and environmental standards, intellectual property protections, and some digital trade provisions.

Overview

- **Country of origin rules:** Automobiles must have 75 percent of their components manufactured in Mexico, the US, or Canada to

qualify for zero tariffs (up from 62.5 percent under NAFTA).

- **Labor provisions:** 40 to 45 percent of automobile parts must be made by workers who earn at least \$16 an hour by 2023. Mexico agreed to pass new labor laws to give greater protections to workers, including migrants and women. Most notably, these laws are supposed to make it easier for Mexican workers to unionize.

- **US farmers get more access to the Canadian dairy market:** The US got Canada to open up its dairy market to US farmers, a big issue for Trump.

- **Intellectual property and digital trade:** The deal extends the terms of copyright to 70 years beyond the life of the author (up from 50). It also includes new provisions to deal with the digital economy, such as prohibiting duties on things like music and ebooks, and protections for internet companies so they're not liable for content their users produce.

- **Sunset clause:** The agreement adds a 16-year sunset clause — meaning the terms of the agreement expire, or “sunset,” after 16 years. The deal is also subject to a review every six years, at which point the US, Mexico, and Canada can decide to extend the USMCA.

Drug Discovery Hackathon 2020 (DDH2020)

In News

The Drug Discovery Hackathon (DDH), 2020 training programme kick-started. It is an online platform to take open source drug discovery to a higher pedestal in the crusade against the COVID-19 pandemic.

About

- Drug Discovery Hackathon 2020 (DDH2020) platform welcomes all those who wish to join the open source drug discovery Hackathon against Covid-19.
- DDH2020 is a joint initiative of AICTE, CSIR and supported by Office of Principal Scientific Advisor, Govt. of India, NIC and MyGov.

- DDH2020 vision and mission is to establish ‘Open innovation Model’ for in silico drug discovery against Covid-19 virus and will cover the various processes in drug discovery, including but not limited to, in silico screening of molecules, lead optimization and identification of drug-able non-toxic targets.

- The targets/tools/lead molecules identified through the process of DDH2020 will be further taken forward for synthesis followed by subsequent steps in routine drug discovery program.

- DDH2020 enables competing and subsequently sharing drug discovery, information, including but not limited to, ideas, articles, papers and other literary work, data, software, applications, notes, results of experiments, patented inventions, confidential information and other materials (hereafter referred to as Information) submitted by the users.

- Currently, India has more than 15 lakhs students & faculty in the field of computer sciences, pharmaceutical sciences, and biotechnology spread across 3000+ colleges and universities.

The Global E-waste Monitor report 2020

In News

The third edition of the Global E-waste Monitor 2020 was launched in July 2020. This report provides comprehensive insight to address the global e-waste challenge.

The Global E-waste Monitor 2020 is a collaborative product of the Global E-waste Statistics Partnership (GESP), formed by UN University (UNU), the International Telecommunication Union (ITU), and the International Solid Waste Association (ISWA), in close collaboration with the UN Environment Programme (UNEP).



The World Health Organization (WHO) and the German Ministry of Economic Cooperation and Development (BMZ) also substantially contributed to this year's Global E-waste Monitor 2020.

Findings

- 53.6 million metric tonnes (Mt) of electronic waste was generated worldwide in 2019, up 21 per cent in just five years.
- The report also predicts global e-waste-discarded products with a battery or plug- will reach 74 Mt by 2030.
- Only 17.4 per cent of 2019's e-waste was collected and recycled.
- Gold, silver, copper, platinum and other high-value, recoverable materials were mostly dumped or burned rather than being collected for treatment and reuse.
- Asia generated the greatest volume of e-waste in 2019 — some 24.9 Mt, followed by the Americas (13.1 Mt) and Europe (12 Mt), while Africa and Oceania generated 2.9 Mt and 0.7 Mt respectively.
- E-waste is a health and environmental hazard, containing toxic additives or hazardous substances such as mercury, which damages the human brain and / or coordination system.
- Proper e-waste management can help mitigate global warming. In 2019, an estimated 98 Mt of CO₂-equivalents were released into the atmosphere from discarded fridges and air-conditioners, contributing roughly 0.3 per cent of global greenhouse gas emissions.
- Europe ranked first worldwide in terms of e-waste generation per capita with 16.2 kg per capita. Oceania came second (16.1 kg) followed by the Americas (13.3 kg). Asia and Africa were much lower: 5.6 and 2.5 kg respectively.
- E-waste is a health and environmental hazard, containing toxic additives or hazardous substances such as mercury, which damages the human brain and/or coordination system.
- An estimated 50 tonnes of mercury— used in monitors, PCBs and fluorescent and energy-

saving light sources— are contained in undocumented flows of e-waste annually.

- E-waste in 2019 was mainly comprised of small equipment (17.4 Mt), large equipment (13.1 Mt), and temperature exchange equipment (10.8 Mt). Screens and monitors, lamps, small IT, and telecommunication equipment represented 6.7 Mt, 4.7 Mt, and 0.9 Mt respectively.

India will not import power equipment from China

In News

Power Minister R.K. Singh clears that India would not import power equipment from China while Minister for Road Transport and Highways said Chinese companies would not be allowed to take part in road projects.

Decisions comes in the backdrop of India contemplating an economic response against China since border clashes.

Various strategies for this include

- More tariff barriers, subsidised financing for encouraging domestic equipment usage, rigorous testing of foreign equipment and prior permission requirements for imports from selected countries etc.
- Earlier, Centre has also decided to levy basic customs duty in range of 20-40% on solar equipment imports.

India's dependence on China in power sector

- China has been a major source of power equipment for India, with a share roughly a third of the total imported machines in terms of value.
- In the last 10 years, 12,540MW out of 22,420MW of super-critical power plants were built on Chinese equipment.
- Also, privately-owned thermal power units, roughly about 40,000MW, were built using Chinese equipment.

- In renewable energy sector, close to 75% of India's solar power capacity is built on Chinese solar modules.

This move will block China's cheap import, lower risk of cyber-attacks on critical power infrastructure and also provide jobs in India.

Sustainable Development Report 2020

In News

The Sustainable Development Report 2020 presents the SDG Index and Dashboards for all UN member states and frames the implementation of the Sustainable Development Goals (SDGs) in terms of six broad transformations.

- 2020 report is focusing on Sustainable Development Goals & CoVID-19 and includes SDG Index that presents progress towards each SDG since 2015.

Key highlights

- World had seen most rapid progress towards: SDG 1 (No Poverty), SDG 9 (Industry, Innovation and Infrastructure), and SDG 11 (Sustainable Cities and Communities)
- COVID-19 had negatively affected several goals: SDG 1; SDG 2 (zero hunger); SDG 3 (good health and wellbeing); SDG 8 (decent work and economic growth); SDG 10 (reduced inequalities).
- Immediate relief to goals due to COVID 19: SDG 12 (responsible consumption and production); SDG 13 (climate action); SDG 14 (life below water); SDG 15 (life on land). However, these gains will be short-term.
- Sweden is placed at the top of the index with an overall score of 84.7 while Bangladesh has a score of 63.5.
- Bangladesh position is ahead of India (117th), Pakistan (134th) and Afghanistan (139th) in South Asia, as per the index.

SDG index

- India ranked at 117 (of 166) ranking below Pakistan and Afghanistan. Sweden topped the ranking.
- India faces major challenges in 10 of the 17 SDGs which include — SDG 2, SDG 3, SDG 5 (gender inequality) etc.

SDGs

- The Sustainable Development Goals (SDGs) was adopted by all member states of the United-Nations in 2015. It describes a universal agenda that applies to all countries. It was devised as a successor to the Millennium Development Goals.
- The SDG index frames the implementation of 17 SDG goals among UN member states in terms of six broad transformations- education and skills, health and wellbeing, clean energy and industry, sustainable land use, sustainable cities, and digital technologies.
- It was prepared by teams of independent experts at the Sustainable Development Solutions Network (SDSN) and the Bertelsmann Stiftung.

Regional Maritime Information Fusion Centre (RMIFC)

In News

After joining the Indian Ocean Commission (IOC) as Observer in March, India is looking to post Navy Liaison Officers at the Regional Maritime Information Fusion Centre (RMIFC) in Madagascar and also at the European maritime surveillance initiative in the Strait of Hormuz for improved Maritime Domain Awareness (MDA).

- The Navy Liaison Officers is expected to be posted at EMASOH by July and at the RMIFC by September or October.

RMFIC

- The RMFIC functions under the aegis of the IOC of which India became an Observer in

March 2020 along with Japan and the United Nations.

- On April 29th, 2018, at the Ministerial Conference on Maritime Safety and Security held in Mauritius, five States from the Eastern and Southern Africa and Indian Ocean Region (ESA-IO), namely Djibouti, Madagascar, Mauritius, Union of Comoros and Seychelles, signed the Regional Agreement for the Setting up of a Regional Maritime Information Exchange and Sharing Mechanism in the Western Indian Ocean.

- The missions of the RMIFC is to:

- Collect, fuse and analyze maritime information

- Establish a regional Maritime Situational Awareness (MSA) and maintain a Recognized Maritime Picture (RMP)

- Interact with the Regional Center of Operations Co-ordination (RCOC)

- Produce reports and studies related to regional maritime safety and security and the marine domain in general

- In this general area of interest, RMIFC collects and processes the following 12 themes which serve as the basis for information management:

- (i) Violent acts at sea

- (ii) Unreported and unregulated illegal fishing

- (iii) Maritime Incidents

- (iv) Traffic and contraband by sea

- (v) Maritime natural event / AHSC

- (vi) Irregular migration and human trafficking by sea

- (vii) Proliferation of Arms and Security Initiative (PSI)

- (viii) Maritime Critical Infrastructure

- (ix) Pleasure / maritime tourism

- (x) Marine environment

- (xi) Maritime cybercrime and Others.

EMASOH

- The European Maritime Awareness in the Strait of Hormuz (EMASOH) headquarters is

composed of Belgium, Denmark, the Netherlands and French officers and based at the French naval base in Abu Dhabi.

- The aim is “to monitor maritime activity and guarantee freedom of navigation in the Persian Gulf and the Strait of Hormuz.”

- On February 5, 2020 the initiative was declared operational by the French Ministry of Armed Forces

Information Fusion Centre – Indian Ocean Region

- The Information Fusion Centre for the Indian Ocean Region (IFC-IOR), an initiative of the Indian Navy and supported by the Government of India launched in December 2018, has started functioning.

- The IFC-IOR has been established at Gurugram along with the Information Management and Analysis Centre, jointly administered by the Indian Navy and Indian Coast Guard.

Nagarhole National Park

In News

The Forest Department will soon put in place a traffic monitoring mechanism along the roads adjacent to Nagarhole National Park and criss-crossing Mysuru and Kodagu districts to ensure better compliance of forest laws by motorists and minimise road kills.

Nagarhole National Park

- Located in Kodagu district and Mysore district in Karnataka, India.

- One of India's premier Tiger Reserves along with the adjoining Bandipur Tiger Reserve and Wayanad Wildlife Sanctuary.

- It is part of the Nilgiri Biosphere Reserve.

- The park ranges the foothills of the Western Ghats spreading down the Brahmagiri hills and south towards Kerala state.

- The park derives its name from naga, meaning snake and hole, referring to streams.



- It was set up in 1955 as a wildlife sanctuary. It was upgraded into a national park in 1988. The park was declared a tiger reserve in 1999.

'SheshNaag' train

- SheshNaag, super-long train is the longest-ever train to run in India.
- IRCTC operated this 2.8 km long freight train by amalgamating four empty BOXN rakes, which was powered by four sets of electric locomotives.
- Indian Railways is trying to run multiple freight rakes together in order to save transportation time and, help in the decongestion of the rail route.
- This incredible feat was achieved in the South East Central Railway zone of the Indian Railways.

Ozone Pollution

In News

According to an analysis by the Centre for Science and Environment (CSE), ozone - a harmful pollutant - increased in several cities while particulate matter and nitrous oxide levels fell during the lockdown.

Reasons Behind

- Ozone is primarily a "sunny weather problem" in India. Ozone is not directly emitted by any source but is formed by photochemical reactions between oxides of nitrogen (NOx) and other volatile organic compounds (VOCs) and gases in the air under the influence of sunlight and heat. It can be curtailed only if gases from all sources are controlled.
- Normally, every year, winter pollution is what draws our attention. The characteristics of summer pollution are different: there are high winds, intermittent rains and thunderstorms, and high temperature and heat waves. This is in contrast to winter — with its inversion, lower mixing height of air, and cold and calm

conditions that trap the air and the pollutants in it.

About Ozone

- Ozone (O₃) is a colourless, reactive oxidant gas. It is a highly reactive gas; even short-term exposure of an hour is dangerous for those with respiratory conditions and asthma and that's why an eight-hour average is considered for ozone instead of the 24-hour average for other pollutants.
- Ozone at ground level is a harmful air pollutant, because of its effects on people and the environment, and it is the main ingredient in "smog." Elevated ground-level ozone exposures affect agricultural crops and trees, especially slow growing crops and long-lived trees

Mars' biggest moon Phobos and its craters

In News

The Indian Space Research Organisation (ISRO) shares the images of Phobos stated that the Mars Orbiter Mission (MOM) has managed to capture a picture of Mars' biggest and closest moon Phobos with the Mars Colour Camera (MCC).

- Mars has two moons, the other being Deimos.
- Images highlighted craters on Phobos named-Stickney, Shklovsky, Roche & Grildrig.

Mars Orbiter Mission (MOM)

- MOM, launched in 2013, is a Mars exploration spacecraft by ISRO.
- Core objectives of MOM include exploring the Martian surface features, morphology, mineralogy and Martian atmosphere by indigenous scientific instruments.
- Mangalyaan' mission made India the first country in the world to successfully launch its mission to Mars on the very first try.

Importance of MOM

- It aims to search for methane, an important chemical in life processes.
- Mars has evidence for water and habitable environment.
- Mars study will help to address fundamental questions about history of our solar system.

Key achievements of MOM

- Discovered that dust storms on Mars can rise up to hundreds of kilometers.
- Took full disc image of the planet, showing Elysium - large volcanic province on Mars.

Mars Color Camera

The Mars Color Camera (MCC) onboard MOM has 16 different modes of exposures, aimed at imaging the Mars surface for Morphological / Structural mapping, imaging dynamic events viz. Polar Icecap, clouds, Dust storms, and other opportunistic imaging.

Phobos

- Mars has two moons, Phobos and Deimos, which are thought to be captured asteroids.
- Phobos is the larger and closer of the two natural satellites of Mars.
- Phobos is largely believed to be made up of carbonaceous chondrites.
- Phobos may be Mars' biggest Moon but in comparison to Earth's Moon, it's pretty small with a radius of only 11 kilometers.
- Even so, it's seven times bigger than Mars' other moon, Deimos. It is so close that it orbits Mars faster than Mars rotates, and completes an orbit in just 7 hours and 39 minutes.
- Phobos is drawing closer to Mars by one meter every century, and it is predicted that in 50 million years it will collide with the planet or break up into a planetary ring.
- Phobos is one of the least reflective bodies in the Solar System and features a large impact crater, Stickney. The temperatures range from

about $-4\text{ }^{\circ}\text{C}$ ($25\text{ }^{\circ}\text{F}$) to $-112\text{ }^{\circ}\text{C}$ ($-170\text{ }^{\circ}\text{F}$), on the sunlit and shadowed sides respectively.

India Remains as Lower-Middle-Income Economy

In News

India continues to be a lower-middle-income country along with 46 others, while Sri Lanka has climbed to the upper-middle-income group for the fiscal year (FY) 2020, according to the World Bank's classification of countries by income levels.

- In total 218 countries have been included in this classification.
- Of 218 economies, 80 are in the high-income group, 60 in the upper-middle, 47 in the lower-middle and 31 in the low-income group.
- The World Bank classifies countries into four income groups namely: low income, lower-middle income, upper-middle income, and high-income economies.
- The classifications are updated each year on July 1 and are based on Gross National Income (GNI) per capita in current USD (using the Atlas method exchange rates) of the previous year.

For FY 2021 the classification was made on the basis of the following GNI per capita

- Low-income economies: GNI per capita, below USD 1,035
- Lower Middle-income economies: GNI per capita between USD 1,036 and USD 4,045
- Upper middle-income economies: GNI per capita between USD 4,046 and USD 12,535
- High-income economies: GNI per capita of above USD 12,536

India, its neighbours and BRICS

- Maldives (\$9,310 or Rs 6,36,432) and Sri Lanka (\$4,060 or Rs 2,77,542) are the only two countries in South Asia in the upper-middle-income group.
- India (\$2,020 or Rs 1,38,087) along with Bangladesh (\$1,750 or Rs 1,19,630), Bhutan

(\$3,080 or Rs 2,10,549) and Pakistan (\$1,580 or Rs 1,08,009) fall in the lower-middle-income group, while Afghanistan (\$550 or Rs 37,598) and Nepal (\$960 or Rs 65,626) are among the low income group economies.

GNI per capita

The GNI (Gross National Income) per capita is the dollar value of a country's total income in a year, divided by its population. GNI includes the amount of money earned by the citizens of the country and businesses, nation's Gross Domestic Product (GDP) and the income it receives from the overseas sources.

Assam to upgrade Dehing Patkai Wildlife Sanctuary into national park

In News

Assam has decided to take necessary steps to upgrade the Dehing Patkai Wildlife Sanctuary into national park.

- In order to expedite the process of upgrading Dehing Patkai into a national park, the Chief Minister directed the forest department to prepare a draft notification and hold public hearing to take the views of local dwellers residing around the Dehing Patkai Wildlife Sanctuary.

Dehing Patkai Wildlife Sanctuary

- It is located in the Dibrugarh and Tinsukia Districts of Assam.
- It is located in the Dehing patkai landscape which is a dipterocarp-dominated lowland rainforest.
- The forest further spreads over in the Tirap and Changlang districts of Arunachal Pradesh.
- The Dehing Patkai Wildlife Sanctuary and a part of Dehing Patkai Rainforest, due to their importance for elephant habitat, were declared as Dehing-Patkai Elephant Reserve under Project Elephant.

Basic for Comparisons	Wildlife Sanctuary	National Park
Meaning	Wildlife Sanctuary, is a natural habitat, owned by the government or private agency, that safeguards particular species of birds and animals.	National park is the protected area, which are established by the government, to conserve wildlife and also develop them.
Preserves	Animals, birds, insects, reptiles, etc.	Flora, fauna, landscape, historic objects, etc.
Objective	To make sure that viable population of the wildlife and their habitats are maintained.	To protect the natural and historic objects and wildlife of an area.
Restriction	Restrictions are less and it is open to public.	Highly restricted, random access to people is not allowed.
Official Permission	Not required	Required
Boundaries	Not fixed	Fixed by legislation
Human activities	Allowed but up to a certain extent.	Not allowed at all.

High impact community development (HICDP) projects

In News

India and Maldives signed a contract for setting up 'Neighbourhood Fish Processing Plants' at two of the islands in the neighbouring country.

About

- These fish-processing plants are the first in a series of High Impact Community Development (HICDP) projects that India and Maldives have committed to execute together under a total grant of USD 5.5 million.
- These Projects chosen by the Government of Maldives have a high-level of community impact and participation in the areas of livelihood and income generation, health, education, gender and child empowerment etc.
- HICDPs constitute an important dimension of the dynamic development partnership between India and the Maldives. They will be implemented by City and Local Councils.

Stalkerware

In News

According to Global cyber-security leader Avast, there was a 51 % increase in the use of spyware and stalkerware in India during the lockdown period from March to June in the backdrop of heightened domestic violence cases.

About

- Stalkerware is monitoring software or spyware that is used for stalking.
- The term was coined when people started to widely use commercial spyware to spy on their spouses or intimate partners.

Spyware vs stalkerware

- A spyware app, which can also be installed remotely, accesses the data usage pattern of the device, gains access to photos and videos as

well as other personal information of the user, and then passes it off to a central server.

- On the other hand, in most cases, a stalkerware app can be installed only when someone has physical access to the digitally connected device.
- Though the app works in a manner similar to spyware apps, it goes a step ahead and also gives out the location of the device to a master device which controls the stalkerware app.

Latent Viral Infection

In News

Ever since cases of 'reinfection' — people who had tested negative for COVID-19 testing positive again after a while — emerged in early January, the question of latency of the SARS-CoV-2 virus is being hotly debated.

About

- A latent viral infection is an infection when the virus in the body is dormant and does not replicate within the host. It however possesses the capacity to be reactivated at some point, causing a flare-up of the disease much later.
- As opposed to active infections, where a virus is actively replicating and potentially causing symptoms, latent infections are essentially static which last the life of the host and occur when the primary infection is not cleared by the adaptive immune response
- Latent viral infections can be reactivated into a lytic form (the replication of a viral genome). The ability to move back and forth from latent to lytic infections helps the virus spread from infected individuals to uninfected individuals"
- Examples are Herpes simplex viruses type 1 and 2, varicella-zoster virus, HIV, Epstein-Barr virus (human herpesvirus 4), and cytomegalovirus. They are known to cause typical latent infections in humans.

5G CLUB

In News

UK has mooted the 5G Club or D10 (Democracy 10) as it is called as an alternative to China-dominated 5G space in the world.

About 5G club

- Also called D 10, it includes democracies of G7 countries including UK, US, Italy, Germany, France, Japan and Canada as well as Australia, South Korea and India.
- It is basically mooted in order to develop alternate supply chain of 5G technology.
- The main aim is to cut out Huawei out of the 5G supply chain network by 2023.

Features

The three essential features of 5G network include: -

- **eMBB** – Enhanced Mobile Broadband with data rates up to 2 Gbps and indoor of up to 20 Gbps.
- **mMTC** – Massive Machine Type Communications (1million connections per square kilometre) supporting a large number of connected devices called Internet of Things (IoT)
- **uRLLC** – Ultra-reliable and Low Latency Communications (1 milli second) enabling applications such as tactile Internet, emergency response, collaborative robotics, intelligent transportation, eHealth, drones, and public safety.

Advantages of 5G technology

- In agriculture, 5G can enable improvement in the entire value-chain, from precision farming, smart irrigation, improved soil and crop monitoring to livestock management.
- In the energy sector, 'smart grids' and 'smart metering' can be efficiently supported enabling growth of alternate energy technologies.
- In healthcare, 5G can enable more effective tele-medicine delivery, tele-control of surgical

robotics and wireless monitoring of vital statistics.

- 5G will be used in in key government projects such as smart cities and Digital India.

IN-SPACE

In News

The government approved the creation of a new organisation to ensure greater private participation in India's space activities. It is the second space organisation created by the government in the last two years.

Need

- India currently holds a meagre 2% share in the global space industry worth \$360 billions.
- In a bid to increase its footprint in the global space industry India as a part of Atma Nirbhar Bharat Abhiyan decided to throw open space sector to private sector entities.
- While private sector in India is currently involved in fabrication of rocket components, this move will enable private sector to make their own rockets and use ISRO's launch vehicle ports like one in Siharikota to launch their own rockets.
- Besides private sector participation will be leveraged in manufacturing of satellites and propellant technology and providing space-based services.
- Thus, in order to provide a level-playing field to private sector entities the Union Cabinet has approved the establishment of IN-SPACE.

Functions

- Regulator of space industry in India.
- It will be responsible for granting approval to private sector entities to use space infrastructure of ISRO for space missions.
- Its decision will be binding on ISRO.
- It will also be responsible for building a conducive policyecosystem for commercialisation of space in India.
- It will hand-hold, promote and guide the private industries in space activities.



SpaceX Dragon

In News

SpaceX has become the 1st private company to launch humans into orbit as the company's Crew Dragon space module carried 2 astronauts to International Space Station.

Spacecraft

The Dragon spacecraft is capable of carrying up to 7 passengers to and from Earth orbit, and beyond. It is the only spacecraft currently flying that is capable of returning significant amounts of cargo to Earth, and is the first private spacecraft to take humans to the space station.

The Dragon spacecraft is equipped with two drogue parachutes to stabilize the spacecraft following reentry and four main parachutes to further decelerate the spacecraft prior to landing.

International Space Station

- Orbit: 400 Km above the surface of the Earth.
- It is a joint project of NASA, Roscosmos of Russia, JAXA of Japan, European Space Agency and Canadian Space Agency.
- ISS acts mainly as laboratory for microgravity experiments which prepares human spaceflights to farther world including Moon and Mars.

Infrastructure boost in areas along China border

In News

To ramp up infrastructure along the China border, the Ministry of Home Affairs (MHA) has decided to spend 10% funds of a Centrally sponsored scheme only on border projects in Ladakh, Arunachal Pradesh, Himachal Pradesh, Uttarakhand and Sikkim. 10% funds would be reserved as an incentive for the better performing States.

- Under BADP the money is distributed to the border States and Union Territories (UTs) depending on various criteria such as the length of the international border and population.

- According to the new guidelines approved by Union Home Ministry, the projects for developing strategically important villages and towns in border areas that have been identified by the border guarding forces, will be given priority.

- The BADP, initially started in 1980s for the western border, has over the years expanded to 16 States and two UTs.

- Forces such as the Border Security Force (BSF), deployed along the Bangladesh and Pakistan borders; the Indo-Tibetan Border Police (ITBP) on the China border; the Sashastra Seema Bal along the Nepal border; and the Assam Rifles stationed along the Myanmar border would provide independent feedback on the projects in the blocks concerned and may be tasked to conduct social audit of the works, it stated.

- No NGO or private institution could be hired for infrastructure related work, the guidelines said. The creation of infrastructure: -

- would help integrate these areas with the hinterland
- create a positive perception of care by the country
- encourage people to stay on in the border areas leading to safe and secure borders

Border Area Development Programme (BADP)

- The programme aims to meet the special development needs of the people living in remote and inaccessible areas situated near the international border and to saturate the border areas with the essential infrastructure through convergence of Central/State/BADP/Local schemes and participatory approach.

- BADP was initiated in the border areas of the western region during that Seventh Five Year Plan period for ensuring balanced development of border areas through development of

infrastructure and promotion of a sense of security among the border population.

- BADP is an important intervention of the Central Government to bring about development of border areas by supplementing the State Plan Funds to bridge the gaps in socio-economic infrastructure on one hand and improving the security environment in border areas on the other.

Indian Gaur

In News

The first population estimation exercise of the Indian gaur carried out in the Nilgiris Forest Division has revealed that more than an estimated 2,000 Indian gaurs inhabit the entire division. The exercise has also revealed that the majority of the animals in "conflict-prone" areas in the division live perilously close to human habitations due to habitat loss and fragmentation, exacerbating the probability of having problematic interactions with humans.

About Indian Gaur

- The gaur, also called the Indian bison, is native to South and Southeast Asia and has been listed as Vulnerable on the IUCN Red List since 1986.
- The global population has been estimated at maximum 21,000 mature individuals by 2016.
- It declined by more than 70% during the last three generations, and is extinct in Sri Lanka and probably also in Bangladesh. In well-protected areas, it is stable and increasing.

Canine distemper virus

In News

85 Asiatic lions having died in the first five months of the current year, a few of those big cats were found infected with canine distemper virus (CDV). Gujarat state forest department has imported 1,000 doses of vaccine as a precautionary measure.



- Canine distemper is a contagious and serious disease caused by a virus.

- Canine distemper virus is known mainly to cause a severe infection in dogs respiratory, gastrointestinal, respiratory and central nervous systems, as well as the conjunctival membranes of the eye.

- A lion does not eat the entire prey at one go. In between, the dogs consume the kill and infect it with the CDV. Once the lion returns to finish it off, it gets the deadly disease.

- The virus does not affect humans however they may be carriers.

- The devastating link between the CDV and potential epidemics has been known since 1994, when within the Serengeti-Mara ecosystem of East Africa (Tanzania) nearly a third of the lion population died or disappeared.

- Babesiosis outbreak was also reported in Gir recently and around two dozen lions were reported to be killed.

- Babesia is protozoa that infects red blood cells and is usually transmitted by a tick bite. Infection with Babesia is called babesiosis.

- ICMR has recommended that the animals should be placed in 2-3 different sanctuaries.

- The Supreme Court in 2013 ruled in favour of translocation of the Asiatic lion to Kuno in the interest of the genetic stability of the species.

India's first gas trading platform

In News

The Government of India has envisaged ushering a Gas Based economy by increasing the share of natural gas in primary energy mix of the country from current level of about 6 % to 15% by 2030. In this regard, the government has recently launched India's first Gas Trading Hub, Indian Gas Exchange Limited (IGX). Let us understand about various facets of the Gas Trading Hub and its benefits for India.

About

- **Gas trading platform:** Electronic gas trading platform. It facilitates buyers and sellers

to come together and transact in natural gas as the underlying asset. Its core function is to ensure fair and transparent transactions as well as efficient price discovery.

- **Indian Gas Exchange Limited (IGX):** India's first Natural Gas trading platform which provides a national level market to all participants for trading in gas. IGX facilitates automated trading where multiple buyers and sellers can trade for physical delivery of natural gas.

- **How will it work?** Allow buyers and sellers of natural gas to trade both in the spot market and in the forward market for imported natural gas across three hubs —Dahej and Hazira in Gujarat, and Kakinada in Andhra Pradesh.

- **Regulation of Trading:** At present there is no statutory authority to regulate trade / transactions happening on the IGX platform. The Petroleum and Natural Gas Regulatory Board (PNGRB) is in the process to draft the regulation for Natural gas trading hub / natural gas exchange in India.

Major Gas Hubs of the World

- The world's biggest natural gas hub is the Henry Hub in the U.S. state of Louisiana.
- The Henry Hub benefits from vast domestic gas production as well as the world's biggest and most freely accessible pipeline network, which stretches into Canada and Mexico.
- In Europe, Britain's National Balancing Point (NBP) and the Dutch Title Transfer Facility (TTF) have emerged as the main natural gas hubs.

'Corona Kavach' insurance policies

In News

General and Health Insurance companies has received approval from the Insurance Regulatory and Development Authority of India

(IRDAI) to launch short-term 'Corona Kavach' health insurance policies.

The short-term "Corona Kavach" health insurance policy will cover medical expenses occurred due to coronavirus disease.

About Corona Kavach Policy

- IRDAI has designed a standard Covid specific product which addresses the basic health insurance requirements of insuring public containing common policy wordings across the industry.
- The sum insured amount of the policy ranges from Rs 50,000 to Rs 5,00,000.
- Person between the age of 18 to 65 years can avail the benefits of the policy.
- People will be able to avail the Corona Kavach policy for Self, spouse, parents, parents-in-law as well as dependent children up to 25 years of age.

"Dhruvastra"

- India has successfully conducted flight tests of its indigenously developed anti-tank guided missile 'Dhruvastra'.
- The flight tests were conducted from the Integrated Test Range at Chandipur in Odisha.
- 'Dhruvastra' is an anti-tank guided missile (ATGM) which has been developed by the Defence Research and Development Organisation (DRDO). It is a helicopter version of 'Nag Helina'.
- 'Dhruvastra', the helicopter-launched ATGM, is meant to be fired from air to destroy enemy bunkers, armoured vehicles and main battle tanks.

India's GDP growth forecast

In News

Fitch has slashed India's GDP growth forecast from 9.5% to 8% for the Fiscal Year 2021-22, in its June update of Global Economic Outlook report. Fitch has retained its projection of

Indian economy contracting by 5% in the FY 2020-21. It has also projected the Indian economy to grow by 5.5% in FY 2022-23.

- Google has announced a \$10 billion for “Google For India Digitisation Fund”. Under the fund, Google will invest roughly Rs 75,000 crore in India over the next 5-7 years.
- Global Bharat program has been launched by the German technology firm SAP India to equip Indian micro, small, and medium enterprises (MSMEs) with digital technologies in order to make them globally competitive.

Payments Infrastructure Development Fund

In News

The RBI has recently announced creation of a Payments Infrastructure Development Fund (PIDF) in order to give fillip to cashless payments within India.

Payments Infrastructure Development Fund (PIDF)

- PIDF aims to encourage acquirers to deploy Points of Sale (PoS) infrastructure — both physical and digital modes in tier-3 to tier-6 centres and north eastern states.
- The setting of PIDF is in line with the measures proposed by the vision document on payment and settlement systems in India 2019-2021.
- It is also in line with the RBI’s proposal to set up an Acceptance Development Fund which will be used to develop card acceptance infrastructure across small towns and cities.

Why need PIDF?

- Over the years, the payments ecosystem in the country has evolved with a wide range of options such as bank accounts, mobile phones, cards, etc.
- To provide further fillip to digitization of payment systems, it is necessary to give

impetus to acceptance infrastructure across the country, more so in under-served areas.

Its working

- The PIDF will be governed through an Advisory Council and managed and administered by RBI.
- It will also receive recurring contributions to cover operational expenses from card-issuing banks and card networks.
- RBI will also contribute to its yearly shortfalls, if necessary.

RBI releases the Financial Stability Report, July 2020

The Reserve Bank of India has released the 21st Issue of the Financial Stability Report (FSR). The FSR reflects the collective assessment of the Sub-Committee of the Financial Stability and Development Council (FSDC) on risks to financial stability and the resilience of the financial system.

Highlights

- Bank credit, which had considerably weakened during the first half of 2019-20, slid down further in the subsequent period with the moderation becoming broad-based across bank groups.
- Capital to risk-weighted assets ratio (CRAR) of Scheduled Commercial Banks (SCBs) edged down to 14.8% in March 2020 from 15.0% in September 2019 while their gross non-performing asset (GNPA) ratio declined to 8.5% from 9.3% and the provision coverage ratio (PCR) improved to 65.4% from 61.6% over this period.
- Macro stress tests for credit risk indicate that the GNPA ratio of all SCBs may increase from 8.5% in March 2020 to 12.5% by March 2021 under the baseline scenario; the ratio may escalate to 14.7% under a very severely stressed scenario.
- Network analysis revealed that total bilateral exposures among entities in the financial

system declined marginally during 2019-20; with the interbank market continuing to shrink and with the better capitalisation of public sector banks (PSBs), there would be reduction in contagion losses to the banking system under various scenarios in relation to a year ago.

Report on Sustainable space heating solutions in the Himalayan region

In News

WWF India (World Wide Fund for Nature) and The Energy and Resources Institute (TERI) have released a report titled "Sustainable Space Heating Solutions in the Himalayan Region".

Aim

To strengthen development and widespread use of low carbon technologies developed by startups and SMEs which can reduce greenhouse gas emissions or provide clean energy access.

- This report is part of an ongoing initiative of WWF-India's 'Climate Solver' programme.
- Climate Solver Programme: It is a climate innovations platform by WWF which first began in Sweden in 2008 and launched in India in 2012.

Way forward

The report highlights the possibility of a reduction of CO₂ emissions from space heating in Himalayas from the projected 17.8 million tonnes (MT) by 2030 under a business as usual (BAU) scenario to 12.3 MT through the use of efficient technologies.

Currently, the emissions from space heating for the year 2020 stand at approximately 15.9 MT of CO₂, for the entire Himalayan region, equivalent to annual emissions generated from about 27 units of 200MW thermal power plants".

WWF: It is an international non-governmental organization founded in 1961 to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature. It is headquartered in Gland, Switzerland.

TERI: It is a non-profit research institute established in 1974. It conducts research work in the fields of energy, environment and sustainable development for India and the Global South.

First Indian State to have 100% LPG connections

In News

Himachal Pradesh has become the first state in the country where 100% households have liquefied petroleum gas connections.

- Earlier, state launched Himachal Grihini Suidha Yojana to cover the families left-out under Pradhan Mantri Ujjwala Yojana (PMUY).
- PMUY is a scheme of the Ministry of Petroleum & Natural Gas for providing free LPG connections to women from Below Poverty Line (BPL) households.

Global Multidimensional Poverty Index 2020 released

In News

The 2020 Global Multidimensional Poverty Index (MPI) data and publication "Charting pathways out of multidimensional poverty: Achieving the SDGs" released by the Oxford Poverty and Human Development Initiative at the University of Oxford and the Human Development Report Office of the United Nations Development Programme.

It measures the complexities of poor people's lives, individually and collectively, each year.

Features of the Report

- The sustainable development goals and the global multidimensional poverty index
- Of the 1.3 billion multidimensionally poor people, 82.3 percent are deprived in at least five indicators simultaneously.
- 71 percent of the 5.9 billion people covered experience at least one deprivation; however, the average number of deprivations they experience is five.
- There is a negative, moderate but statistically significant correlation between the incidence of multidimensional poverty and the coverage of three doses of the diphtheria, tetanus and pertussis (DTP3) vaccine. Some of the poorest countries (Central African Republic, Chad, Guinea, South Sudan) vaccinate less than half of surviving infants with the DTP3 vaccine.
- In Nigeria, which has one of the lowest percentages of DTP3 coverage globally, the percentage of people who are poor and deprived in child mortality is the highest among comparator countries Democratic Republic of the Congo, Ethiopia and Pakistan. This suggests that child deaths can be prevented and multidimensional poverty reduced by widespread immunization programmes.
- Multidimensionally poor people have less access to vaccinations: in the four countries studied, the percentage of people living with a child who did not receive the third dose of the DPT-HepB-Hib vaccine³ is higher among multidimensionally poor people and people vulnerable to multidimensional poverty than among non-poor people.
- Sub-Saharan African countries have the highest percentages of people who are multidimensionally poor and deprived in years of schooling (Niger, Burkina Faso, South Sudan, Chad and Ethiopia) and school attendance (South Sudan, Burkina Faso, Niger, Chad and Mali).
- In Haiti, with the highest percentage of people who are multidimensionally poor and deprived in years of schooling in Latin American

and the Caribbean (22.8 percent), rural women face more disadvantage than their male counterparts, and the differences by sex are higher (by about 2 years) among the non-poor and vulnerable groups.

- 84.2 percent of multidimensionally poor people live in rural areas, where they are more vulnerable to environmental shocks.
- In every developing region the proportion of people who are multidimensionally poor is higher in rural areas than in urban areas.
- In Sub-Saharan Africa 71.9 percent of people in rural areas (466 million people) are multidimensionally poor compared with 25.2 percent (92 million people) in urban areas.
- In South Asia 37.6 percent of people in rural areas (465 million people) are multidimensionally poor compared with 11.3 percent (65 million people) in urban areas.
- Deprivation in access to clean cooking fuel persists worldwide: 20.4 percent of people in the developing countries covered by the MPI are multidimensionally poor and lack access to clean cooking fuel.
- Deprivation in access to clean cooking fuel among poor people in rural areas and urban areas in Sub-Saharan Africa as well as in rural areas in South Asia, the Arab States and Latin America and the Caribbean requires urgent attention.
- Environmental deprivations are most acute in Sub-Saharan Africa: at least 53.9 percent of the population (547 million people) is multidimensionally poor and faces at least one environmental deprivation. Environmental deprivations are also high in South Asia: at least 26.8 percent of the population (486 million people) is multidimensionally poor and lacks access to at least one of the three environment indicators.
- There is a strong positive association between employment in agriculture and multidimensional poverty, particularly in Sub-Saharan Africa. Agricultural employment may not help reduce poverty in these countries without additional pro-poor policy interventions.

The global multidimensional poverty index

- Across 107 developing countries, 1.3 billion people—22 percent—live in multidimensional poverty.¹
- Children show higher rates of multidimensional poverty: half of multidimensionally poor people (644 million) are children under age 18. One in three children is poor compared with one in six adults.
- About 84.3 percent of multidimensionally poor people live in Sub-Saharan Africa (558 million) and South Asia (530 million).
- 67 percent of multidimensionally poor people are in middle-income countries, where the incidence of multidimensional poverty ranges from 0 percent to 57 percent nationally and from 0 percent to 91 percent sub nationally.
- Every multidimensionally poor person is being left behind in a critical mass of indicators. For example, 803 million multidimensionally poor people live in a household where someone is undernourished, 476 million have an out-of-school child at home, 1.2 billion lack access to clean cooking fuel, 687 million lack electricity and 1.03 billion have substandard housing materials.
- 107 million multidimensionally poor people are age 60 or older—a particularly important figure during the COVID-19 pandemic.
- 65 countries reduced their global Multidimensional Poverty Index (MPI) value significantly in absolute terms. Those countries are home to 96 percent of the population of the 75 countries studied for poverty trends. The fastest, Sierra Leone (2013–2017), did so during the Ebola epidemic.
- Four countries halved their MPI value. India (2005/2006–2015/2016) did so nationally and among children and had the biggest reduction in the number of multidimensionally poor people (273 million). Ten countries, including China, came close to halving their MPI value.²

- In nearly a third of the countries studied, either there was no reduction in multidimensional poverty for children, or the MPI value
- The countries with the fastest reduction in MPI value in absolute terms were Sierra Leone, Mauritania and Liberia, followed by Timor-Leste, Guinea and Rwanda. North Macedonia had the fastest relative poverty reduction, followed by China, Armenia, Kazakhstan, Indonesia, Turkmenistan and Mongolia. Each of these countries cut its original MPI value by at least 12 percent a year.
- In 14 countries in Sub-Saharan Africa, the number of multidimensionally poor people increased, even though their MPI value decreased, because of population growth.
- How countries reduced their MPI value varies by indicator and by subnational region. Twenty countries significantly reduced deprivations for every indicator. Bangladesh, Lao People's Democratic Republic and Mauritania had pro-poor reductions in subnational regions.
- Multidimensional poverty trends do not match monetary poverty trends, suggesting different drivers.
- Charting trends in multidimensional and monetary poverty measures and using global data and national statistics, as Atkinson (2019) proposed, provides an overall picture of a country's poverty situation.
- Before the pandemic 47 countries were on track to halve poverty between 2015 and 2030, if observed trends continued. But 18 countries, including some of the poorest, were off track.

Indian Scenario

It states that India recorded the largest reduction in the number of people living in poverty as around 273 million people moved out of the multidimensional poverty over 10 years (from 2005- 2006 to 2015-2016).

Forex reserves cross \$500 bn for 1st time

In News

According to the latest data released by the RBI, the forex reserves have crossed \$500-billion mark for the first time ever.

Components of Forex reserves

The Forex reserves in India comprise of Foreign Currency assets (FCAs), Special Drawing Rights (SDRs), Reserve Position in the IMF and Gold.

Foreign Currency Assets (FCAS)

This is the largest component of the Forex Reserves consisting of US dollar and other major global currencies such as Euro, Pound, Yen etc. Additionally, it also comprises investments in US Treasury bonds, bonds of other selected governments, deposits with foreign central and commercial banks.

Even though, Foreign Currency Assets (FCA) is maintained in major currencies, the foreign exchange reserves are denominated and expressed in US dollar terms.

Special Drawing Rights

- The SDRs was created by the International Monetary Fund (IMF) as an international reserve asset in the year 1969 to supplement its member countries' official reserves.
- The SDR is a basket of 5 currencies- Dollar, Euro, Pound, Yen and Yuan.
- The SDRs are allocated to member countries in proportion to their IMF quotas. The value of the SDR is based on a basket of five currencies— the U.S. dollar, the Euro, the Chinese Renminbi, the Japanese Yen, and the British Pound Sterling.
- The value of SDR is set daily by the IMF on the basis of exchange rates between the currencies included in SDR.
- The value of SDR is denominated in terms of dollars.

Increase in the Forex reserves would benefit India

- An important indicator of the stability of a currency is import cover. It measures the number of months of imports that can be covered with foreign exchange reserves available with the central Bank. The rising forex reserves have led to an improvement in India's import cover to around 14 months. Further, an increase in the forex reserves will give the RBI the firepower to act against any sharp depreciation in the value of Rupee.
- The news of Increase in the Forex Reserves comes amid the recent downgrade in India's credit ratings by Moody's. Hence, the increase in Forex Reserves will send a strong signal that its macro-economic fundamentals are quite strong and provide confidence to the market that it can meet its external debt obligations.

Global Partnership for Artificial Intelligence

In News

India joined international and multi-stakeholder initiative Global Partnership for Artificial Intelligence (GPAI) on artificial intelligence as its founder member.

It is an international coalition that aims at ensuring that Artificial Intelligence is used responsibly, respecting human rights and democratic values.

The Global Partnership on AI (GPAI) is an international initiative created by France and Canada along with Australia, the European Union, Germany, India, Italy, Japan, Mexico, New Zealand, the Republic of Korea, Singapore, Slovenia, the United Kingdom and the United States of America.

Mandate

- Bridge the gap between theory and practice on AI by supporting cutting-edge research and applied activities on AI-related priorities.

- Evolving better understanding of the challenges and opportunities around AI.

In collaboration with international partners and organisations, the GPAI will bring together experts from industry, civil society, governments and the academic world, who will form working groups focusing on the following themes:

- Responsible use of AI
- Data governance
- The future of work
- Innovation and commercialization

India's initiatives to promote Artificial Intelligence

- **National AI Strategy:** The Strategy is termed #AIForAll as it is focused on leveraging AI for inclusive growth. It has also proposed setting up of centre of Research Excellence (CORE) to focus on developing better understanding of existing core research. Besides this, the strategy paper also recommends setting up of International Centres of Transformational AI with a mandate to develop and deploy application-based research in collaboration with private players.
- **SAMARTH Udyog:** Initiative of Ministry of Heavy Industries and Public Enterprises for the adoption of Industrial Revolution 4.0 in Indian Manufacturing sector.
- **Crop yield prediction model using AI:** In May 2018, NITI Aayog partnered with IBM to develop a crop yield prediction model using AI to provide real-time advisory to farmers. The partnership aims to provide insights to enhance crop productivity, increase soil yield, and control agricultural inputs with the goal of improving farmers' income.

Equalisation Levy 2.0

In News

Equalisation Levy 2.0 (introduced in Budget 2020 and effective from April 1, 2020), applies to non-resident e-commerce operators ('EOP')

with digital or e-commerce facility or platform for the online sale of goods and/or online provision of services.

- The government amended the existing tax payment challan (ITNS 285) to facilitate payment of EL 2.0.

Background

India's first tryst with equalisation levy ('EL') was in the year 2016, when an attempt was made to bring non-resident advertising platforms generating revenues from Indian audiences, under the Indian tax net.

Rationale behind introduction of digital taxes

The existing tax norms have been framed keeping in mind the brick and mortar business models. However, these norms are not suitable to regulate online services. With rapid advancements in the field of big data and AI, the digital companies have been able to harness the user generated data enabling them to earn huge revenues through digital advertisements. In spite of the fact that these companies earn revenue by harnessing the data generated in a particular country, these companies are not obliged to pay adequate taxes in source country. Hence, Equalization Levy has been introduced in the Union Budget 2016 in order to bring such Internet based companies within the ambit of tax.

About EL

- The equalization levy of 6% is applicable to the income accruing to a foreign E-commerce company which is not a resident of India.
- Any person or entity in India which makes a payment exceeding Rs 1 lakh in a financial year to a nonresident technology company (such as Google) for some B2B (Business to Business) transactions needs to withhold 6% of the gross amount to be paid as equalization levy.
- The two conditions to be met to be liable to equalization levy:

- (i) The payment should be made to a non-resident service provider;
- (ii) The annual payment made to the service provider should exceed Rs. 1 lakh in one financial year.

The Finance Act, 2020 has inserted a provision to impose Equalisation levy of 2% on the revenues generated by nonresident e-commerce companies. The Equalisation levy would be applicable only if the aggregate revenues for a nonresident e-commerce companies exceed a threshold of Rs 2 crores.

Automotive solutions portal for Industry, Research and Education (ASPIRE)

In News

International Centre of Automotive Technology (ICAT) announced the launch of the automotive technology e-portal ASPIRE, which stands for Automotive Solutions Portal for Industry, Research and Education.

About

- The key objective of this portal is to facilitate the Indian Automotive Industry to become self-reliant by assisting in innovation and adoption of global technological advancements by bringing together the stakeholders from various associated avenues.
- The activities that will be promoted here would include R&D, hosting challenges for technology development and also conducting market research and technology surveys for identifying the trends in the Indian auto industry.
- The e-portal will aim to bring together the automotive OEMs, Tier 1, Tier 2 and Tier 3 companies, R&D institutions and academia on matters involving technology advancements.

International Centre for Automotive Technology

- The International Centre for Automotive Technology (ICAT) was established in 2006 at Manesar, Haryana.
- It is a leading world class automotive testing, certification and R&D service provider under the aegis of NATRiP (National Automotive Testing and R&D Infrastructure Project), Government of India.

MediCAB

In News

A start-up incubated in the Indian Institute of Technology (IIT), Madras, has developed a portable hospital.

- MediCAB is a decentralized approach to detect, screen, identify, isolate and treat COVID-19 patients in their local communities through these portable microstructures.
- 'MediCAB' was launched recently in Wayanad District of Kerala where the units are being deployed to treat COVID-19 Patients.
- The startup is developing micro hospitals that can be deployed rapidly across the nation.
- The hospital unit is foldable and is composed of four zones - a doctor's room, an isolation room, a medical room/ward and a twin-bed ICU, maintained at negative pressure.
- The startup collaborated with Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST) who provided inputs on the certifications and customizations necessary for the project.

Trinity (Nuclear Test)

In News

On July 16, 1945, exactly 75 years ago, scientists tested Gadget — the world's first atomic bomb — in what was dubbed as the 'Trinity Test'.

About

- Trinity was the code name of the first detonation of a nuclear device.
- It was conducted by the United States Army on July 16, 1945, as part of the Manhattan Project.
- The test was conducted in the Jornada del Muerto desert about 56 km southeast of Socorro, New Mexico. The test was planned and directed by Kenneth Bainbridge.
- The test was of an implosion-design plutonium device, informally nicknamed "The Gadget", of the same design as the Fat Man bomb later detonated over Nagasaki, Japan, on August 9, 1945.

State of Food Security and Nutrition in the World 2020 (SOFI 2020) report

In News

The State of Food Security and Nutrition in the World (SOFI) 2020 report was released on the sidelines of the High-Level Political Forum (HLPF) on Sustainable Development which tracks the progress of nations towards achieving Sustainable Development Goals 2030.

This year, the report includes a special focus on transforming food systems for affordable healthy diets. It analyses the cost and affordability of healthy diets around the world, by region and in different development contexts.

What's new?

- Higher level of accuracy of the hunger estimates thanks to the availability of fresh data, including new population figures, new food balance sheets and updated household survey data for a range of populous countries, including China;
- Projections of what the number of undernourished people and several nutrition indicators may look like by 2030 under a continuation of recent trends.

- Preliminary assessment of COVID-19's impact on food security, based on the recent global economic outlooks.

Major findings

- The world is not on track to meet the goal of zero hunger by 2030 i.e. SDG2.
- Between 8.3 crore and 13 crore people globally are likely to go hungry this year due to the economic recession triggered by COVID-19.
- Hunger continues to be on the rise since 2014 and the global prevalence of undernourishment, or overall percentage of hungry people, is 8.9%. Almost 69 crore people went hungry in 2019 — up by 1 crore in 2018
- Asia remains home to the greatest number of undernourished (38 crore). Africa is second (25 crore), followed by Latin America and the Caribbean (4.8 crore).
- In 2019, 21.3% (14.4 crore) of children under 5 years were stunted, 6.9% (4.7 crore) wasted and 5.6% (3.8 million) overweight.
- A healthy diet costs more than ₹143 (or \$1.90/ day), which is the international poverty threshold. The number of people globally who can't afford a healthy diet is at 300 crore people, or more than the combined population of China and India.

Guidelines for evaluation of Nano-Based Agri-Input and food products in India

In News

Centre released these guidelines after Inter-ministerial coordination coordinated by Department of Biotechnology.

Objective of guidelines

- To help researchers in development of products for agriculture and human consumption.
- To help regulators to assess quality and safety of nano based agriculture and food products.

- To encourage Indian innovators and industries to develop new nano-based formulations and products in these sectors.

Key features of the Guidelines

- It defines Nanomaterial (NM), nano-agri-input products (NAIPs) and nano-agri products (NAPs).
- It provides for regulation of such products mainly under Insecticides Act, 1968, FSSAI guidelines etc.
- Presently there are no specific provisions to deal with such products.
- It provides safeguards to ensure Human health safety, Environmental safety, Occupational health safety and waste disposal etc.

Definition of NMs, NAIPs and NAPs

- **Nanomaterial (NM)** is defined as a material that ranges in size from 1 to 100 nm at least in one dimension or any materials that possess improved properties or phenomena because of the effect of dimension(s)
- **Nano-agri-input product (NAIP)** is defined as an agricultural input preparation containing NMs intended for applications (through soil, seed, foliar and drip in crops as well as by other means) on crops for the purpose of farming.
- **Nano-agri product (NAP)** is defined as an agricultural preparation containing NMs intended for consumption or application in food/feed and their supplements as well as nutraceutical delivery.

Rationale for manufacturing of NAIPS and NAPS

- The rationale underlying manufacturing of NAIPs and NAPs should be demonstrated and specified with reference to their claimed advantage(s) in comparison to conventional products.
- The NMs and their transformed waste disposal impacts on ecosystems should also be taken into consideration.

The following aspects should be specifically addressed for justification of the use of NAIPs and NAPs:

- The claim should be made on the basis of parameters that must include efficacy, safety, application modes and frequency, improved crop yield and productivity or any other benefit over conventional products.
- Addressing any issue arising out of a significantly different mode of action and assimilation than that of the conventional products.
- Addressing the issue of specific effect/property associated with the conventional products, if any, such as soil and plant toxic effects.

Azad Pattan Hydropower Project

In News

Pakistan and China signed an agreement for the 700 MW Azad Pattan hydel power project on the Jhelum river in Sudhoti district of Pakistan Occupied Kashmir (PoK)

- It is the second power project under the China Pakistan Economic Corridor (CPEC).
- The first agreement was for the 1,100 MW Kohala project.

About

- The project is a run-of-the-river scheme with a reservoir located near Muslimabad village, 7 km upstream from the Azad Pattan bridge, in district Sudhnoti, one of the eight districts of PoK.
- The project will be commissioned by 2024. The project will comprise a 90-metre-high dam, with a 3.8 sq km reservoir.
- The Azad Pattan project is one of five hydropower schemes on the Jhelum. Upstream from Azad Pattan are the Mahl, Kohala, and Chakothei Hattian projects; Karot is downstream. Like Kohala and Azad Pattan,

Karot too, is being developed under the CPEC framework.

Bangladesh's Chattogram port

In News

The first trial container ship, was flagged off from Kolkata carrying cargo reached Tripura's capital via the Chattogram port in Bangladesh.

About

- The trial consignment includes TMT steel bars destined for Tripura and pulses for Assam. After reaching Chattogram, the consignment will move to Agartala on Bangladeshi trucks.
- The trial run follows the understanding reached between the two countries during the visit of PM Sheikh Hasina to India in 2019 when the Standard Operating Procedures (SoP) for the use of Chattogram and Mongla ports for transit of goods was finalised.
- The operationalisation of these ports of transit for Indian goods will significantly reduce the time taken in carrying goods through Bangladesh while it will also enhance business and revenue for Bangladesh as its trucks and vessels will be used to move the Indian cargo.
- In recent years both the countries have enhanced cooperation in shipping and inland water trade. Under the Protocol on Inland Water Transit and Trade, in addition to the six existing Ports of Call, five more in each country have been added recently.

KURMA App

In News

KURMA is a mobile-based application aimed at turtle conservation. It was launched on the occasion of World Turtle Day (23rd May).

About

- The application has been developed by the Indian Turtle Conservation Action Network (ITCAN) in collaboration with the Turtle Survival

Alliance-India and Wildlife Conservation Society-India.

- It serves as a digital database, with a built-in digital field guide covering 29 species of freshwater turtles and tortoises of India, and information on turtle identification, distribution, vernacular names, and threats.
- A report released in 2019 by TRAFFIC, an international wildlife trade monitoring organisation, showed that at least 11,000 tortoises and freshwater turtles fall prey to illicit poaching and smuggling every year, adding up to over 1,11,130 turtles poached or smuggled between September 2009 and September 2019.

Indian Turtle conservation Action Network

- The ITCAN was formed to launch citizen-science initiative. It provides platform to exchange vital information on turtles, provides assistance to enforcement agencies, forest departments, etc. It will also help in observing 2020 as the YEAR OF THE TURTLE.
- The World Turtle Day is marked by the Turtle Survival Alliance as well.

Turtle Survival Alliance

The alliance was formed in 2001 in partnership with the International Union for Conservation of Nature for sustainable management of tortoises and turtles. The alliance arose in response to the Asian Turtle Crisis. The Asian Turtle Crisis is the unsustainable harvest of turtles to supply to Chinese markets.

Environment Impact Assessment Draft 2020

In News

The Delhi High Court has extended the window for public feedback to the draft Environment Impact Assessment Notification 2020.

Contentious Provisions of the 2020 draft

- Linear projects such as roads and pipelines in border areas will not require any public hearing. The 'border area' is defined as "area falling within 100 kilometres aerial distance



from the Line of Actual Control with bordering countries of India.

- All inland waterways projects and expansion/widening of national highways will be exempt from prior clearance. These include roads that cut through forests and dredging of major rivers.
- It also exempts most building construction projects of built-up area up to 1,50,000 sq. m.
- It also contains provisions for post-facto project clearance and abandoning the public trust doctrine. Projects operating in violation of the Environment Act will now be able to apply for clearance.
- Violations of the provisions has to be reported either by a government authority or the developers themselves. There is no scope for any public complaint about violations. Instead, the reliance is on the violators to disclose, Suo motu, that they broke the law.

Digital divide for Online classes

In News

A meeting was held between the Centre and the States to discuss the Standard Operating Procedure (SOP) for digital education and for reopening of schools amid Covid-19 outbreak.

Issues

Several states raised concern over online classes.

Reasons include:

- Digital Divide – Those with no access to internet may be excluded from quality learning. Further, classes at times get disturbed due to connectivity issues.
- According to 2017-18 National Sample Survey, less than 15% of rural households have access to internet as opposed to 42% in urban households.
- As per NSSO data, only 4.4% of rural households and 23.4% of urban households have computer/laptop.

- Gender divide – Increased domestic responsibilities especially for girls are impairing the atmosphere of learning.
- Lack of vernacular content – Most of the content and existing lectures on internet are in English.
- Difficulties for teachers – Without adequate training, many teachers are not comfortable with using technology.

States were advised to

- Utilise Samagra Shiksha Abhiyan funds under ICT head and girl education head to bridge digital divide.
- Use direct-to-home education channels run by Union government.
- Cap online class at three hours every day.

GAFATax

In News

As the coronavirus deficit soars into the trillions, governments across the globe are planning to tax big online companies which have gained most from the pandemic and have always paid nominal or very less taxes.

These big giants Google, Apple, Facebook and Amazon all together known as GAFAT operates from the jurisdictions with convenient tax structures and pays very little taxes in the host countries despite having large user and revenue base.

- US is having opposition to GAFAT taxes as these taxed companies are US based companies and impacts US tax base.
- The French parliament in 2019 approved a law that made France the first major economy to impose a tax on internet heavyweights. The legislation will impose a 3% levy on the total annual revenues of the largest technology firms providing services to French consumers.
- Several Latin American countries re also planning to raise taxes on high-income earners, and Indonesia's move to raise value-added tax on digital platforms — because, in the words of

its finance minister, “their sales have soared amid the COVID-19 outbreak.”

- The European Union (EU) is mulling a series of taxes, to be raised directly by its executive arm in Brussels, to help fund the pandemic recovery in the 27-nation bloc. They include a tax on high-carbon-emission imports, a tax on digital firms and a tax on 70,000 large multinational companies that access the EU’s single market and its 450 million consumers.
- Some other EU member states such as Britain, Spain and Italy are also working on national versions of a digital tax, with Singapore and India also planning their own schemes.

CogX 2020

In News

AI enabled MyGov Corona Helpdesk bagged two awards under categories (1) “Best Innovation for Covid-19 – Society” and (2) “People’s Choice Covid-19 Overall Winner”, at the recently held CogX 2020, which is a prestigious Global Leadership Summit and Festival of AI & Emerging Technology held annually in London.

- The awards were won by Technical Partner of Mygov, JioHaptik Technologies Limited

CogX

- CogX is one of the world's largest events on AI, held annually in London with over 15,000 participants in attendance from the highest levels of business, government, industry, and research.
- The CogX Awards are given out to the best-of-the-best in AI and emerging technologies across the world.

“Matsya Sampada” launched

In News

Union Minister for Fisheries, Animal Husbandry and Dairying, launched the first edition of the Fisheries and Aquaculture Newsletter “MATSYA SAMPADA” published by the Department of Fisheries, Ministry for Fisheries, Animal

Husbandry and Dairying, and the Operational Guidelines of the Pradhan Mantri Matsya Sampada Yojana (PMMSY).

About

- The Newsletter “MATSYA SAMPADA” is an outcome of the endeavours of the Department of Fisheries to reach out to the stakeholders especially fishers and fish farmers through various means of communication.
- The objective is to inform and educate them about the latest developments in the fisheries and aquaculture sector.
- It would be published on a quarterly basis starting from the first quarter of the year 2020-21.
- The Newsletter “MATSYA SAMPADA” is likely to serve as an effective tool and platform in disseminating the intent and initiatives of PMMSY for crystalizing public opinion in the collective effort towards reaching the envisaged goals.

Rs 20,000 crores for Fishermen through Pradhan Mantri Matsya Sampada Yojana (PMMSY)

- **Critical gaps** in fisheries value chain
- **Government will launch the PMMSY for integrated, sustainable, inclusive development of marine and inland fisheries.**
- **Rs 11,000 Cr for activities** in Marine, Inland fisheries and Aquaculture
- **Rs. 9000 Cr for Infrastructure** - Fishing Harbours, Cold chain, Markets etc.
- Cage Culture, Seaweed farming, Ornamental Fisheries as well as New Fishing Vessels, Traceability, Laboratory Network etc. will be key activities.
- Provisions of Ban Period Support to fishermen (during the period fishing is not permitted), Personal & Boat Insurance
- Will lead to **Additional Fish Production of 70 lakh tonnes over 5 years.**
- **Employment to over 55 lakh persons; double exports** to Rs 1,00,000 Cr.
- **Focus** on Islands, Himalayan States, North-east and Aspirational Districts.



Zinc Gluconate

Element Zinc is vital for maintaining normal bone homeostasis, and its levels are reported to get reduced in rheumatoid arthritis patients and arthritis-induced animals. It is also known that oral supplementation of zinc in the form of zinc gluconate have very low bioavailability in

humans. Institute of Nano Science & Technology (INST) has formulated nanoparticles with chitosan and loaded these nanoparticles with zinc gluconate for reducing the severity of rheumatoid arthritis.

Zinc gluconate-loaded chitosan nanoparticles exerted superior therapeutic effects compared to the free form of zinc gluconate. Chitosan is nontoxic, biocompatible, biodegradable natural polysaccharide. It is one of the most abundant biopolymers obtained from the exoskeleton of crustaceans have shown absorption promoting characteristics.

Rheumatoid Arthritis

- Rheumatoid arthritis (RA) is a long-term autoimmune disorder that primarily affects joints.
- It typically results in warm, swollen, and painful joints.
- Most commonly, the wrist and hands are involved, with the same joints typically involved on both sides of the body.
- This may result in a low red blood cell count, inflammation around the lungs, and inflammation around the heart.
- While the cause of rheumatoid arthritis is not clear, it is believed to involve a combination of genetic and environmental factors.
- Pain medications, steroids, and NSAIDs are frequently used to help with symptoms.

UN Report on Zoonotic Diseases

In News

According to a report published by the United Nations Environment Programme (UNEP) and the International Livestock Research Institute (ILRI), about 60% of known infectious diseases in humans and 75% of all emerging infectious diseases are zoonotic.

The report was released on 6th July 2020, observed as 'World Zoonoses Day'. It focuses on

the context and nature of potential future zoonotic disease outbreaks, during the Covid-19 pandemic by identifying the anthropogenic (changes in environment due to human activity) factors.

Zoonoses or Zoonotic Disease:

- It is a disease that passes into the human population from an animal source directly or through an intermediary species.
- Zoonotic infections can be bacterial, viral, or parasitic in nature, with animals playing a vital role in maintaining such infections. Examples of zoonoses include HIV-AIDS, Ebola, Malaria, and the current Covid-19 disease.

Anthropogenic Factors

- **Increased Use of Wildlife:** Exploitation of wildlife for hunting, harvesting of wild animals for meat and research or medical purposes can bring humans in closer contact with wild animals, thus increasing the risk of zoonotic disease emergence.
- **Changes in Food Supply Chains:** The popularity of food products with animal source and the need for immediate delivery to consumers is driving major changes in the food supply chain.
- **Increased Demand for Animal Protein:** This has encouraged the intensification and industrialisation of animal production, wherein a large number of genetically similar animals are bred in for higher productivity.
- **Intense and Unsustainable Farming:** Intensive farm settings cause animals to be raised in close proximity to each other characterized by poor waste management. This makes them more vulnerable to infections, which can further lead to emergence of zoonotic diseases.
- **Use of Antimicrobials:** High use of antimicrobials in farm settings is contributing to the burden of AntiMicrobial Resistance (AMR).



Kakrapar-3

In News

KAPP-3 is India's first 700 MWe unit and is the biggest Pressurised Heavy Water Reactor (PHWR).

About

- The Kakrapar Atomic Power Project (KAPP-3) which is the third unit in Gujarat achieved its first criticality.
- The criticality signifies the initiation of the controlled and sustained nuclear fission reaction.
- This event is a landmark in India's domestic civilian nuclear programme.
- The KAPP-3 is the country's first 700 megawatt electric unit (MWe) and is the biggest skillfully developed variant of Pressurised Heavy Water Reactor.
- The mainstay of India's nuclear reactor fleet is the PHWRs.
- The PHWRs uses natural uranium as fuel and heavy water as a moderator.
- Till now, the biggest reactor size was the 540 MWe PHWR of two reactors deployed in Tarapur, Maharashtra.
- Till January 2020, the nuclear power capacity constitutes less than 2% of the total installed capacity of 3,68,690 MWe. India is planning to expand its power capacity of 6,780 MWe to 22,480MWe by 2031 and 700 MWe capacity will act as the biggest component.

Significance of KAPP-3

- The operationalization of the 700 MWe reactor marks a significant scale up in technology and optimization of PHWRs design.
- The 700 MWe unit addresses the issue of external thermal margins and an improvement in economies of scale.
- At present, there are four units of 700 MWe units being built at Kakrapar (KAPP-3 and 4) and Rawatbhata (RAPS-7 and 8).

- The 700MWe unit will act as a backbone to a new fleet of 12 reactors.
- India's main nuclear reactors in the future are 700 MWe reactors along with the Russian VVER-1000 reactors at Kudankulam, Tamil Nadu.
- The capacity investment for these projects is being funded with the debit-to-equity ratio of 70:30.

Assam floods and Rhinos

In News

More than 100 wild animals, including at least eight rare rhinos, have died in recent flooding at a national park in north-eastern India.

The Kaziranga park in Assam state is home to the world's largest population of one-horned rhinos, which faced extinction at the turn of the century.

Kaziranga National Park

- It is a national park in the Golaghat and Nagaon districts of Assam. The sanctuary, which hosts two-thirds of the world's great one-horned rhinoceroses, is a World Heritage Site.
- Kaziranga is recognized as an Important Bird Area by BirdLife International for conservation of avifaunal species.
- Kaziranga has the largest population of the Wild water buffalo anywhere accounting for about 57% of the world population.
- Total number of National Parks in Assam is Five (5). Kaziranga National Park, Manas National park, Orang National Park, Dibru-Saikhowa National Park and Nameri National Park.

One-horned rhino

- One-horned rhinoceros is the largest of the Asian Rhinos.
- Assam is home to the largest population of one-horned rhinos.
- IUCN status: Vulnerable

- It is included in the Schedule - I of Wildlife (Protection) Act, 1972.

Godhan Nyay Yojana

In News

Godhan Nyay Yojana Yojana, a first of its kind scheme, has been launched in Chhattisgarh on the occasion of festival of Hareli.

Under the scheme, government will procure cow dung at Rs 2 per kilogram from livestock owners and use it to prepare organic fertilizers.

Benefits of the scheme:

- With implementation of this scheme, government aims to give a boost to rural economy and to create employment opportunities in the rural areas.
- Gives boost to organic farming.
- Proper disposal of waste produced by cattle, hence keeps the city and roads clean.

GODHAN NYAY YOJANA

Economic Benefits to Livestock Owners
Generating New Employment Opportunities

- Govt to procure cow dung at Rs 2/- per kg from livestock owners
- Repurposing procured cow dung into Vermicompost and other eco-friendly items
- Selling Vermicompost at Rs. 6/- per kg to the farmers to promote organic farming
- Scheme to protect crops from open grazing, prevent straying of animals on roads
- Conservation of environment

Shri Bhupesh Baghel
Minister, Chhattisgarh

Kayapo people and Uighurs

- Kayapo people are indigenous peoples in Brazil who inhabit a vast area spreading across the Amazon River and along Xingu River and its tributaries.
- The Kayapo use intricate black body paint covering their entire bodies. They believe that their ancestors learned their social skills from

insects, so they paint their bodies to mimic them and to better communicate with the Spirit that exists everywhere.

- The black body paint also allows them to blend into their surroundings when hunting in the forests.

Uighurs

- Uighurs, are a minority Turkic ethnic group originating from and culturally affiliated with the general region of Central and East Asia.
- The Uyghurs are recognized as native to the Xinjiang Uyghur Autonomous Region of the People's Republic of China.
- China rejects the idea of them being an indigenous group.
- Uighur communities are also found in Uzbekistan, Kyrgyzstan, and Kazakhstan, and several thousand live in Australia.

PASSEX

In News

Recently, Indian Naval ships conducted a Passage Exercise (PASSEX) with the U.S. Navy's USS Nimitz carrier strike group near the Andaman and Nicobar islands.

- A passage exercise is normally undertaken whenever an opportunity arises, in contrast to pre-planned maritime drills.
- Recently, the Indian Navy had also conducted similar PASSEXs with the Japanese Navy and the French Navy.
- It is aimed to improve the cooperation between the U.S. and Indian maritime forces and to maximize training and interoperability, which also include air defence.

Open Credit Enablement Network (OCEN)

In News

Open Credit Enablement Network (OCEN), the new credit protocol infrastructure will be launched through an app called 'Sahay', by September.

- An organisation by the name CredAll has also been set up to ensure the implementation of the OCEN, and will look at giving access of this new protocol to industry participants.
- This is similar to the umbrella body DigiSahamati Foundation (or Sahamati) which was created to operate the Account Aggregator (AA) model in the country.

The release of 'SAHAY' app is also similar to the launch of BHIM UPI, which was an app to further the use-case of Unified Payments Interface (UPI) in the country, launched by Prime Minister in 2016.

Close to 30 customer-facing entities, across segments of - tax and legal filing apps, neo-banks, khata app companies, payment gateways, agri-tech companies, supply chain financiers are looking to become Loan Service Providers (LSPs), and adopt this protocol.

- Under these new credit rails, OCEN will act as a common language, connecting lenders and marketplaces to utilise and create innovative, financial credit products at scale.
- Under this new credit paradigm, Account Aggregators which will be using these APIs (Application Programming Interface) to embed credit offerings in their applications will be called 'Loan Service Providers'.

The Sahay app will have lending partners such as State Bank of India, HDFC Bank Ltd., ICICI Bank Ltd., IDFC First Bank Ltd., Axis Bank Ltd. and Bajaj Finserv Ltd. for this new credit rail, where merchants can sign-up and get instant loans from lenders by providing their GST identification number, along with their bank details.

Along with this, merchants will also have to set up a collection mandate, through UPI's 'AutoPay' feature, or other collection mechanisms, before the loan is disbursed.

- Currently, the invoice-discounting used-case, where a merchant can receive loans against outstanding invoices is ready for implementation.

At present, OCEN is running pilots across the country and has partners like IDFC First Bank and Bajaj FinServ onboard. Startups like JusPay and OkCredit are also a part of the pilots.

Haloarchaea

In News

Lonar lake turned pink due to salt-loving 'Haloarchaea' microbes. Haloarchaea or halophilic archaea is a bacteria culture which produces pink pigment and is found in water saturated with salt.

Absence of rain, less human interference and high temperature could have resulted in the evaporation of water, increasing salinity and pH levels in the lake.

About Lonar Lake

- The 56,000-year-old Lonar crater sanctuary lake in Buldhana district, Maharashtra has turned red/pink, most probably due to salinity and presence of halophilic archaea bacteria in the water body.
- Lonar Lake was created by a meteor impact during the Pleistocene Epoch.
- It is the only known hyper velocity meteorite crater in basaltic rock anywhere on Earth.
- It was notified as a National Geo-heritage Monument in 1979 by Geological Survey of India (GSI).

Indian Bullfrog (Hoplobatrachus tigerinus)

In News

The Indian Bullfrog makes its presence felt in the rainy season.

- Scientific Name: Hoplobatrachus tigerinus.

- Common Names: Bullfrog, Golden Frog, Green Frog, Tiger Frog etc.
- IUCN Red List: Least Concern.
- Indian Wildlife Act 1972: Schedule IV.
- Schedule IV along with Schedule III provide protection with lesser penalties.
- It is native to the Indian subcontinent (Afghanistan, Bangladesh, India, Myanmar, Nepal and Pakistan) and is the largest frog in India.
- They prefer freshwater wetlands and aquatic habitats. Generally they avoid coastal and forest areas.
- The frog does not stay in water for a long time; it spends most of its time hiding and feeding in surrounding vegetation.

Fifth State of Matter in Space⁰⁴

In News

- Scientists have observed the fifth state of matter in space for the first time, offering unprecedented insight that could help solve some of the quantum universe's most intractable conundrums.
- NASA scientists on Earth have collaborated with astronauts on the International Space Station (ISS) to corral the first ever Bose-Einstein condensate (BEC) outside of Earth's gravity.
- Among other things, the BEC lasted hundreds of times longer than the same substance on Earth's surface.

About BECs

- There are four natural states of matter: Solids, liquids, gases and plasma.
- The fifth state is the man-made Bose-Einstein condensates.
- Bose-Einstein condensates (BECs) -- the existence of which was predicted by Albert Einstein and Indian mathematician Satyendra Nath Bose almost a century ago -- are formed when atoms of certain elements are cooled to near absolute zero (0 Kelvin, minus 273.15

Celsius).

- BECs straddle the line between the macroscopic world governed by forces such as gravity and the microscopic plane, ruled by quantum mechanics.
- Scientists believe BECs contain vital clues to mysterious phenomena such as dark energy -- the unknown energy thought to be behind the Universe's accelerating expansion.
- But BECs are extremely fragile. The slightest interaction with the external world is enough to warm them past their condensation threshold.
- This makes them nearly impossible for scientists to study on Earth, where gravity interferes with the magnetic fields required to hold them in place for observation.

Significance of BECs

- When a group of atoms is cooled to near absolute zero, the atoms begin to clump together, behaving as if they were one big "superatom." Unlike solids, liquids, gases and plasmas, BEC's don't form naturally.
- They serve as a valuable tool for quantum physicists because all the atoms in a BEC have the same quantum identity, so they collectively exhibit properties that are typically displayed only by individual atoms or subatomic particles. Thus, BEC's make those microscopic characteristics visible at a macroscopic scale.
- A BEC also has many of the properties of a superfluid, or a fluid that flows without friction.
- BECs are also used to simulate conditions that might exist in black holes.

Global Fund for AIDS, TB and Malaria (GFATM)

In News

Sex workers and people living with AIDS wrote to Global Fund for AIDS, TB and Malaria (GFATM) and sought assistance to meet survival needs. They raised concerns that they were

being ignored by government and multilateral agencies in COVID-19-related emergency relief efforts.

GFATM had approved a \$20-million COVID response fund for India that has no direct support for at least 1.5 million [persons from these vulnerable groups], despite repeated, evidence-based demands by civil society.

About GFATM

- GFTAM is an international financing and partnership organization that aims to “attract, leverage and invest additional resources to end the epidemics of HIV/AIDS, tuberculosis and malaria to support attainment of the Sustainable Development Goals established by the United Nations”.
- Global Fund was created in 2002 to pool the world’s resources & invest them strategically in programs to end Tuberculosis (TB), Acquired Immuno-Deficiency Syndrome (AIDS), and Malaria as epidemics.
- The G8 formally endorsed the call for the creation of the Global Fund at its summit in July 2001.
- The Global Fund is the world’s largest financier of AIDS, TB, and malaria prevention, treatment, and care programs. As of June 2019, the organization had disbursed more than US\$41.6 billion to support these programs.

International Tigers Day

International Tigers day was observed on July 29, 2020.

About

- In 2010, the Heads of the Governments of Tiger Range countries at St. Petersburg, Russia, had resolved to double tiger numbers across their global range by 2022 by signing the Petersburg declaration on tiger conservation.
- During the said meeting it was also decided to celebrate July 29 as Global Tiger Day across the world, which is since, being celebrated to

spread and generate awareness on tiger conservation.

- There are currently 13 tiger range countries -
- India, Bangladesh, Bhutan, Cambodia, China, Indonesia, Lao PDR, Malaysia, Myanmar, Nepal, Russia, Thailand and Vietnam.

1Malaysia Development Berhad scandal (1MDB Scandal)

In News

Goldman Sachs has reached a \$3.9bn (£3bn) settlement with the Malaysian government for its role in the multi-billion-dollar 1MDB corruption scheme.

Malaysia’s former leader Najib Razak was found guilty of corruption and sentenced to 12 years in jail in the first trial over a multi-billion-dollar scandal at state fund 1MDB.

About

- 1Malaysia Development Berhad (1MDB) is an insolvent Malaysian strategic development company, wholly owned by the Minister of Finance (Incorporated).
- It was founded in 2009 by Malaysia’s former prime minister Najib Razak founded as a platform to bring foreign investment to the country and promote long-term economic development.

Timeline

- July 2009

Then prime minister and finance minister Najib launches 1MDB, a "strategic development company driving new ideas and new sources of growth". The fund is wholly owned by the government of Malaysia and Najib is chairman of its board of advisers.

- September 2009

1MDB signs a deal with PetroSaudi International to set up a joint venture company and invests \$1bn cash for a 40 percent stake. PetroSaudi, backed by oil and gas assets said to



be worth \$1.5bn, takes 60 percent in the business.

- March 2012

Najib launches the Tun Razak Exchange, built by 1MDB as a new financial district for Kuala Lumpur. Najib tells invited guests the first phase of the development will bring in RM3.5b (\$856.8m) in direct foreign investments.

- May and October 2012

US investment bank Goldman Sachs helps 1MDB sell bonds worth \$3.5bn to raise money to buy power assets.

- March 2013

Goldman Sachs helps 1MDB raise a further \$3bn in an additional bond sale, this time to cover "new strategic economic initiatives" between Malaysia and Abu Dhabi.

- December 2013

The "Wolf of Wall Street", with Leonardo DiCaprio in the lead role, is released in the United States. The \$100m film was produced by Red Granite Pictures, a newcomer co-founded by Najib's stepson Riza Aziz.

- January 2015

1MDB misses a loan payment of about \$550m.

- March 2015

Under pressure, Malaysia's government sets up a 'special taskforce' to investigate 1MDB.

- July 2015

The Wall Street Journal and Sarawak Report say nearly \$700m suspected to have originated with 1MDB was deposited into Najib's personal bank account.

Najib sacks the attorney general who was leading the Malaysian investigation and reshuffles his cabinet, removing key critics, including deputy prime minister Muhyiddin

Yassin. The ruling party politician leading the parliamentary inquiry into 1MDB is made a deputy minister.

The changes effectively shut down the domestic investigation.

- January 2016

The new attorney general clears Najib of any wrongdoing, saying the \$681m was a donation from a prince in Saudi Arabia and \$620m was returned.

- July 2016

The United States Department of Justice files a civil suit to seize assets it alleges were bought with funds stolen from 1MDB. The suit says \$681m found its way into the personal account of 'Malaysian Official 1', later identified as Najib by both the US and a Malaysian minister.

- June 2017

The justice department announces it believes more than \$4.5bn was siphoned from 1MDB by senior officials and their associates.

- August 2017

The justice department says a criminal investigation into the fund is underway. The attorney general later describes the scandal as "kleptocracy at its worst".

- May 2018

Najib is defeated in Malaysia's general election amid deepening anger over 1MDB and the rising cost of living, and his United Malays National Organisation (UMNO) finds itself out of power for the first time since independence. Two days later, Najib and his wife, Rosmah Mansor, are barred from leaving the country.

- June 2018

Malaysian police raid Kuala Lumpur properties connected to Najib, seizing jewellery, designer

handbags, luxury watches and cash valued at around \$275m.

- July 2018

The first charges are laid against Najib in relation to 1MDB.

- October 2018

Rosmah also finds herself in court where she is charged with money laundering and tax evasion.

- December 2018

Malaysia files criminal charges against Goldman Sachs in relation to the 1MDB bond sale.

- April 2019

Najib appears in the Kuala Lumpur High Court on April 3 to face seven charges in relating to SRC International, a unit of 1MDB, in the first of a series of trials relating to the failed fund.

- May 2019

Malaysia announces it has completed the sale of Equanimity, the \$250 million superyacht allegedly bought with money diverted from 1MDB.

- August 2019

Najib goes on trial in Kuala Lumpur in the biggest of his five 1MDB-linked trials.

- March 2020

A power grab within the ruling Pakatan Harapan coalition triggers the resignation of Mahathir Mohamad as prime minister. After a week of uncertainty, the king names Muhyiddin Yassin to the top job saying he has a majority in parliament. The manoeuvring returns UMNO, where Najib remains influential, to government.

- May 2020

Malaysian prosecutors agree a \$107.3 million settlement with Riza Aziz, and drop money laundering charges against the former prime minister's stepson.

- July 2020

Malaysia reaches a \$3.9bn settlement with US investment bank Goldman Sachs, agreeing to drop its criminal investigation into the bank's role in the 1MDB scandal.

Dare to Dream 2.0

In News

Defence Research and Development Organisation (DRDO) has launched its innovation contest 'Dare to Dream 2.0' on the 5th death anniversary of APJ Abdul Kalam.

About

- The 'Dare to Dream 2.0' is an open challenge to promote the individuals & startups for innovation in defence and aerospace technologies in the country.
- Award money, up to Rs 10 lakh for startup and Rs five lakh to individual category, will be given to the winners.

World Hepatitis Day

In News

World Hepatitis Day, observed on July 28 every year, aims to raise global awareness of hepatitis — a group of infectious diseases known as Hepatitis A, B, C, D, and E — and encourage prevention, diagnosis and treatment.

- Hepatitis causes liver diseases and can also kill a person.
- World Hepatitis Day is one of eight official global public health campaigns marked by the World Health Organization (WHO), along with World Health Day, World Blood Donor Day, World Immunization Week, World Tuberculosis Day, World No Tobacco Day, World Malaria Day and World AIDS Day.

Themes

- 2017: Eliminate Hepatitis.
- 2018: Test. Treat. Hepatitis.
- 2019: Invest in eliminating hepatitis.
- 2020: Hepatitis Free Future.

- There are five main strains of the hepatitis virus – A, B, C, D and E. Together, hepatitis B and C are the most common cause of deaths, with 1.3 million lives lost each year.
- WHO is calling on all countries to work together to eliminate viral hepatitis as a public health threat by 2030.

World's first electrified rail tunnel fit to run double-stack containers

In News

The Dedicated Freight Corridor Corporation (DFCC) completed construction of the world's first electrified rail tunnel that is fit to run double stack containers through Aravalis in Sohna.

About

- The one-km tunnel is located on the Rewari-Dadri section of the Western Dedicated Freight Corridor (DFC). The tunnel connects Mewat and Gurgaon district of Haryana.
- The tunnel has provision for double line electrified track for double stacks train movement.
- Geologically this tunnel is safe and stable as it is caved through 250 to 500 million year old proterozoic rocks which have high bearing capacity.
- The Western DFC and most parts of the Eastern DFC are slated for completion in June 2022, which will make the movement of freight trains seamless.

G4 EA H1N1 Virus01

In News

In a new research, scientists from China – which has the largest population of pigs in the world – have identified a “recently emerged” strain of influenza virus that is infecting Chinese pigs and that has the potential of triggering a pandemic. Named G4, the swine flu strain has genes similar to those in the virus that caused the 2009 flu pandemic.

Key Findings

- The scientists identified the virus through surveillance of influenza viruses in pigs that they carried out from 2011 to 2018 in ten provinces of China.
- During this time, more than 29,000 nasal swabs were collected from slaughtered pigs and over 1,000 swabs or lung tissues were collected from farmed pigs that had signs of respiratory disease.
- Out of these samples, the researchers isolated 179 swine flu viruses, the majority of which belonged to the newly identified G4 strain.
- They also found that the G4 strain has the capability of binding to human-type receptors (like, the SARS-CoV-2 virus binds to ACE2 receptors in humans), was able to copy itself in human airway epithelial cells, and it showed effective infectivity and aerosol transmission in ferrets.
- The scientists report that the new strain (G4) has descended from the H1N1 strain that was responsible for the 2009 flu pandemic.

Striped Hairstreak and Elusive Prince

In News

Lepidopterists in Arunachal Pradesh have discovered the two new species of butterfly namely Striped Hairstreak and Elusive Prince in Arunachal Pradesh.

- One of them, the Striped Hairstreak, was first recorded by Japanese entomologists in Hainan province of China.
- The other, Elusive Prince, has a Vietnamese connection and was thought to be the more familiar Black Prince found in the Eastern Himalayas.
- The Striped Hairstreak (*Yamamotozephyrus kwangtugenesis*) was located in Vijaynagar bordering Myanmar while the Elusive Prince was found in Miao on the periphery of the Namdapha National Park.
- The scientific name of the Elusive Prince is *Rohana tonkiniana*, named after Tonkin in north Vietnam, where it was first recorded. It was believed to exist in Bhutan, but studies of the specimen found there have not been conclusive.

Kumhar Sashaktikaran Yojana of KVIC

In News

The Union Home Minister Shri Amit Shah distributed 100 electric potter wheels under Kumhar Sashaktikaran Yojana of KVIC (Khadi and Village Industries Commission).

Highlights

The electric potter wheels were distributed to the marginalized potter community under Atma Nirbhar Bharat Abhiyan. The wheels were distributed to the artisans who were trained under Kumhar Sashaktikaran Yojana of KVIC.

Kumhar Sashaktikaran Yojana

- The scheme was launched by KVIC.
- It reaches out to potters in the states of Madhya Pradesh, Uttar Pradesh, Jammu and Kashmir, Haryana, West Bengal, Haryana, Rajasthan, Assam, Tamil Nadu, Telangana, Odisha, Bihar, and Gujarat.
- The scheme provides support to potters in training for advanced pottery products, market linkages and visibility through KVIC exhibitions

and latest and new technology pottery equipment like that of electric Chaak.

KVIC

- The KVIC is a statutory body that was established in 1956 under Khadi and Village Industries Commission Act.
- It works under Ministry of Micro, Small and Medium Enterprises. It aims to plan, promote, and organize establishment and development of KVIC industries in rural areas.
- The three major objectives of KVIC are as follows
 - (i) Social Objective: To provide employment in rural areas
 - (j) Economic Objective: To provide saleable articles
 - (k) Wider Objective: To create self-reliance among people and build strong rural community spirit.

Woolly Whitefly

- According to the Indian Council of Agricultural Research (ICAR), pests damage 30-35% of crops in the country annually.
- Now, entomologists have raised the hopes of fruit growers troubled by the woolly whitefly, as two types of ladybird beetles are among the three indigenous bugs found to be the biological weapons against this enemy of the Indian fruit farmers that originated in the Caribbean.
- The whitefly (*Aleurothrixus floccosus*) is invasive and polyphagous, meaning a creature that feeds on various kinds of food.
- ICAR's National Bureau of Agricultural Insect Resources in Bengaluru had in 2019 reported the spread of the pest from the Caribbean island through transportation of infested seedlings.

Zonal Master Plan of Bhagirathi Eco-Sensitive Zone

In News

The union environment ministry has approved the zonal master plan for the Bhagirathi eco-

sensitive zone notification that stretches from Gaumukh to Uttarkashi covering an area of 4179.59 sq. km.

Highlights

The announcement was made by the minister during a review meeting of “Chardhaam Road Project” in the state of Uttarakhand. The plan was prepared by the Government of Uttarakhand and was appraised by the Ministry of Jal Shakti.

Background

The Bhagirathi Eco-Sensitive Zone notification was issued by the Minister of Environment, Forest and Climate Change in 2012. The notification was then amended in 2018.

What is the issue?

There were years of protests by the local environmentalists to protect the Himalayan region by restricting hydropower projects of 2 MW, change of land use and riverbed mining.

Zonal Master Plan

- The Bhagirathi Eco-Sensitive Zone notification mandates the State Government of Uttarakhand to prepare ZMP to be implemented under the supervision of the Monitoring Committee.
- The ZMP is based on watershed approach and includes governance in the area of forest and wildlife, watershed management, irrigation, energy, tourism, public health and sanitation, road infrastructure, etc.
- Watershed development approach is based on participatory planning following a bottom-up approach for developing a context appropriate plan for execution, strengthening of local level institution, conservation and appropriate management of watershed's natural resources.
- Watershed is a geo-hydrological unit draining into a common point by a system of drains.
- The approval of ZMP is expected to give a boost to conservation and ecology of the area

and also to undertake developmental activities as permitted under ZMP.

Bhagirathi Eco-Sensitive Zone

The zone is located in the upper Himalayas. It is an interdependent fragile Ganga-Himalayan basin. The area falls under the Higher Himalayas and Garhwal lesser Himalayas.

Zoram Mega Food Park in Mizoram

In News

Recently Zoram Mega Park was inaugurated in Mizoram.

- It is the first mega food park of Mizoram.
- It will provide direct and indirect employment to 5000 people and benefit 25000 people.
- It will benefit the farmers, growers, the food processing sector and consumers of Mizoram and adjoining areas immensely.

Mega Food Park Scheme

- The Ministry of Food Processing is the nodal ministry for the scheme.
- It aims at providing a mechanism to link agricultural production to the market by bringing together farmers, processors and retailers.
- It focuses on maximizing value addition, minimizing wastage, increasing farmers income and creating employment opportunities particularly in rural sector.

Financing

- Centre gives 50% of the capital grant for establishing a food park s.t maximum 50 crores.
- It is 75% for difficult and hilly areas.
- The grant-in-aid under the scheme is released in four installments of 30%, 30%, 20% and 20%, subject to other scheme parameters,
- It is implemented by a Special Purpose Vehicle (SPV) which is a Body Corporate registered under the Companies Act.

- It is based on the “Cluster” approach and envisages creation of state of art support infrastructure in a well-defined agri / horticultural zone for setting up of modern food processing units in the industrial plots provided in the park with a well-established supply chain.
- Mega food parks typically consist of supply chain infrastructure including collection centers, primary processing centers, central processing centers, cold chains and around 25-30 fully developed plots for entrepreneurs to set up food processing units.
- So far 19 Mega Food Parks are operational.

Special Articles

Philosophical Nature of Indian Music

- The Indian classical music, or Carnatic, has essentially got a spiritual component inherent in it.
- Indian classical music has emerged from a mythical or legendary past that was before recorded history.
- Musicians with a profound understanding of Indian heritage, its associated symbols, and myths, use the structure of the music and the words of the composition that are often rooted mythology, to move into the abstract, subtle, inspiring, and mystical domains.

The Guru-Shishya and Gharana tradition

The Guru-Shishya parampara is another crucial feature which is common for all the classical music traditions of India. For centuries, this Guru-shishya transmission has made it possible to carry forward the intense experiences innately embedded in this great tradition of enlightened practitioners of music.

The Origin and Historical Development of Different Forms of Indian Music

- The origin of Indian music can be traced back to the chanting of Vedic hymns and mantras. The Chandogya Upanishad talks about the seven styles of gana (musical modes), highlighting the importance of Svara (phonemes) of a Vedic mantra that should be pronounced absolute accuracy.
- The impact will only be then felt. This Upanishad further states that the innermost self (ātman) of all svara is the chief Vedic God Indra.
- In the post-Vedic age came the Nāṭyaśāstra, one of the ancient most compendium on Indian art forms. It was compiled between 200 BCE to 200 CE, It is said that Nāṭyaśāstra author, the sage Bharata Muni, created the Nāṭya (theatre) integrating speech from the Rig Veda, music from the Sāma Veda, acting from the Yajur Veda, and emotions from the Atharva Veda.
- This further contributed the tradition of Gandharva Veda - Vedic science of music.
- Another distinction, concerning the ritualized chanting Vedas and the singing style of performing arts that might have existed around the 10th Century CE is noted Acharya Abhinavagupta of Kashmir.
- One of the earliest references of Rāgas used Indian classical music can be found in the Buddhist textual sources, The 10th century manuscript of CharyaGi (performance-songs) obtained from Tibet, is attributed to 8th century CE Mahasiddhas Sarahapa.
- Sikhism is perhaps the only religion that uses music as its chief mode of worship, where poetic teachings of Gurus, composed in classical music, are used as prayer and offering, Using different styles, the Sikh Kirtans are rendered in the Raga and Tala of Indian classical music, This music is used as a direct means for formal worship. In the Guru Granth Sahib, the notation of thirty-one Ragas of Classical music has been supplied with necessary particulars.
- The development of Khayal style of Hindustani music appears around the time period of the 17th century CE. Historically, its

popularity coincided with the breaking down of the Mughal empire and the rise of 47 (romantic) poetry of Hindi literature.

- The Khayal style, which was an offshoot of its precursor classical music form called Dhrupad, particularly suited to the courtesans who preserved and served the classical music and dance to their customers in a rather mundane context. This was the time when the Dhrupad musical repertoires, may have been transformed through radical changes in style, tempo, function, and ideology.

Northeast Region: Unique Identity

India's North-eastern region has a long and glorious history. Earliest human footprints here have been traced back to the early Stone Age or Palaeolithic Age (between 40,000 and 35,000 years ago). It has been home to people belonging to various human races, with ethnologists pointing at the presence of traces of Negritos too, apart from prominent existence of people of pre-Dravidian, Eurasian, Austroloid, Mongoloid, Alpine or Armenoid, Mediterranean, Indo-Aryan and Irano-Scythian stocks. Various places of Arunachal Pradesh, Assam and Manipur in particular, on the other hand, figure prominently in the epic lores of this country.

Ethnically most tribes belong to the Indo-Mongoloid racial stock, and speak languages of different divisions and subdivisions of the great Sino-Tibetan linguistic family. The Bodo, Rabha, Dimasa and Karbi languages of Assam, Garo of Meghalaya, Kokborok of Tripura, and most languages spoken in Arunachal Pradesh, Nagaland, Mizoram and the hills of Manipur belong to the Tibeto- Burman sub-family of the Sino- Tibetan group.

Assamese on the other hand belong to the neo Indo-Aryan family, while Khasi is a Mon-Khmer (Austro-Asiatic) language spoken in Meghalaya. Practically most languages and dialects spoken

across the region, barring sikkim, belong to the Tibeto-Burman group. Nepali, Bhotia and Lepcha are the three major languages in Sikkim, which ethnically different from the other Northeastern states.

On the religious front, a sizeable majority of tribal communities in Meghalaya, Nagaland, Mizoram and Manipur have in the past 200 years embraced Christianity by leaving behind their respective traditional faiths of nature worship. Majority of people in Assam, Tripura and the Imphal Valley of Manipur on the other hand subscribe to different forms of Hinduism, among which Vaishnavism is the most prominent in Assam and Manipur. Among major indigenous faiths are Donyi-Polo in Arunachal Pradesh and Niam-tre in Meghalaya. Arunachal Pradesh also has a significant presence of Buddhism; the Monpa, Sherdukpen, Memba and Khamba tribes follow the Mahayana school, while the Khamti, Singpho and Tangsa tribes follow the Theravada school.

Bihu, the most popular festival in Assam, has its roots in agrarian practices of ancient times. Thus, while Bhogali Bihu is celebration of the harvest, Rongali Bihu is about the New Year. Assam also observes Kongali Bihu-which comprises of a solemn prayer for a good crop. While the Bodos call their New Year festival Baisagu, the Dimasas call it Busu, the Karbis call it Rongker, the Mishings call it Ali-aye-Lrigang, and the Rabhas call it Baikho.

In Meghalaya, the Khasis celebrate Shad Suk Mynsiem, the Jaintias celebrate Behdeinkham and the Garos Wangala. In Mizoram on the other hand, all three festivals—Chapchar Kut, Mim Kut and Pawl Kut—are related to agriculture, during which the Mizos perform Cheraw, the amazing bamboo dance. In Arunachal Pradesh on the other hand, the Adi community celebrates Solung, the Apatanis celebrate Dree, the Niyishis celebrate Nokyum, the Galos celebrate Mopin and the Monpas

celebrate Losar all related to agriculture. Some festivals of Nagaland tribe-wise are- Sekrenyi (Angami), Aoling Monyu (Konyak), Moatsu (Ao), Tuluni (Sema), Tokhu Emong (Lotha) and Amongmong (San gtam).

Sowa-Rigpa (Knowledge of Healing or Science of Healing)

The term Sowa-Rigpa is derived from Bhoti language which means 'Knowledge of Healing'. It is an ancient Indian medical system conceived and propounded by Lord Buddha in India and later was enriched in the entire Trans-Himalayan region. Sowa-Rigpa has been developed and incorporated into different environmental and cultural contexts through the centuries. (Sowa-Rigpa has moulded itself into the socio-cultural lineage since ages), where every village has had an Amchi family to look after public health.

Today, Sowa-Rigpa is acknowledged as a traditional medical system by the governments of India, Bhutan, Mongolia and Tibet. The principle medical text "rGyud-bZi" (Chatush Tantra-a textbook of fundamental principles of Sowa-Rigpa in Sanskrit language) was pioneered by Lord Buddha and translated into Bhoti language around 8-12th Century and amended by Yuthok Yontan Gombo and other scholars of Trans Himalayan region according to the socio-climatic conditions. The fundamental principles of Sowa-Rigpa is based on Jung-wa-nga (Panchmahabutha), Nespa-sum (Tridosha), Luszung-dun (Saptadhatu) etc. According to Sowa-Rigpa health is an equation of balance of tridosha and five cosmophysical energies (Panchmahabutha), balance within the body, balance with the environment, and with the Universe. Pulse examination and astrological evaluation/analysis of an individual are the unique diagnostic tools in Sowa-Rigpa. The natural resources which are safe, effective and time-tested are used as the sources of medication.

In Manipur, while Cheiraoba is the Manipuri New Year festival, Lai- Haraoba is celebrated to



appease the sylvan deity called Umanglai, Yaoshang is the wonderful week-long Holi festival and Rath Yatra, also called Kang Chingba, is a nine-day chariot festival dedicated to Lord Jagannath. Among the tribal communities in Manipur on the other hand, major festivals include Chavang-Kut of the Kuki-Chin group, Gang-Ngai of the Kabuis, and Chumpha and Lui-Ngai-Ni of the Tangkhuls.

Rongkhli

Rongkhli or 'Tiger Festival' is a religious festival celebrated by the people of Nongtalang village in the War-Jaintia region of Meghalaya. The War-Jaintias lives on the slopes of the west Jaintia hills district bordering Bangladesh. Like all other sub-tribes of the Khasis, the War-Jaintias too believe that they came to this earth from the sky through a golden ladder that was located at one point of time at Sohpetbneng mountain top in the northern part of the Khasi Hills of Meghalaya. Rong means festival and Khli means tiger, in the local dialect, hence Rongkhli means Tiger Festival. Tradition has it that whenever any person from the village catches a tiger or its feline like, rituals have to be performed. The people of Nongtalang worship two goddesses namely; Ka Pyrtuh and Ka Kapong. The Dorbar is then summoned by the Chief of the village and a date is decided for the Festival. The festival is mainly held in the month of January to March.

Chokri Naga Folk Songs - Nagaland

The Chokri community is a sub community under the tribe Chakesang (Naga). Chakesang tribe as a whole have a Chakesang cultural research center situated at Chethba town in Phek district. They cherish the folk song culture as their proud heritage, which forms as part of every walk of life- work, 'celebration, dances, folk media, war cry, solo, duet, trio and many such possibilities. In the absence of literary

script and the medium being oral, the practitioners sing by memory.

Maharashtra: Richly Diverse and Vibrant

The culture of Maharashtra culture is a perfect blend of fascinating folk, traditional, classical and contemporary art forms, rich literature, robust festivals, delicious food, colourful clothing, varied artefacts, and innovative modern entertainment. Whatever the era, it has always inspired the artists from all over the globe and will continue inspiring future generations.

Visual Arts

The rich visual art forms of Maharashtra range from the enthralling rock sculptures found in the caves and grottos, to the astounding wall paintings, — to the distinct temple architecture, to the very unique Chitrakathi and Ganjifa paintings to the appealing Warli paintings to the attractive Rangoli to recently discovered Petroglyphs (rock carvings).

Cave Art

- Maharashtra is home to the largest number of caves in India, of all sizes, shapes and hues, from ancient rock-cut ones to ones with intricate sculptures.
- These caves are fascinating archeological legacies, Caves lead to an understanding of the world-as it existed during those times—and the cultural, social and religious practices.
- The Elephanta caves, the Ajanta and the Ellora caves are enlisted in the UNESCO World Heritage Site list.

The caves at Ajanta and Ellora near Aurangabad are a striking reminder of an age of Buddhism at its peak. There are about 800 caves spread across various districts but of these the 32 caves at Ajanta stand out distinctively because of their architectural splendour, legacy, and artistic masterpieces.

The caves include paintings and rock-cut sculptures described as among the finest surviving examples of ancient Indian art, particularly expressive paintings that present — emotions through gesture, pose and form.

The Elephanta caves are located on a small island in the sea near Mumbai. The caves are hewn from solid basalt rock. The carvings narrate Hindu mythologies, with the large monolithic 20 feet Trimurti Sadashiva (three-faced Shiva), Nataraja (Lord of dance) and Yogishvara (Lord of Yoga).

Zadipatti & Dashavatar — Maharashtra

Zadipatti is practised in the rice cultivating region/Eastern region of Maharashtra, which includes Chandrapur Bhandar and Gadchiroli district of Vidarbha, during the harvest season and derives its name from the local name zadi for rice. The theatre art of this region is known as Zadipatti Rangbhumi. It is a blend of commercial and folk theatre form. Live music is a vital part of the form and the actors are singers as well. Although practised by various theatre groups these days, the region is inhabited by tribes like Gond, Korfu and Pardhi: and Zadipatti was born out of the tribal performing art called Dandar, which was a theatrical performance combining music and dance.

Dashavatar: Traditional Folk Theatre Form

Dashavatar is a folk theatre form practised by farmers in the Sindhudurg district of the South Konkan region of Maharashtra and the North Goa district of Goa. Dashavatar is popular form of drama in the rural areas. Initially popularised in the Konkan area, today it come to be looked upon as art of the classes. The 'performance uses bright make-up and costumes. It is accompanied by. three "musical instruments: a paddle harmonium, tabla and zanj (cymbals).

The Pinguli Chitrakathi

The Thakkar tribe of Pinguli village near Kudal in Sindhudurg has been practicing Pinguli Chitrakathi since the 17th century, Their unique style of painting is done using a paper, brush and handmade colours. It follows a sequence and is based on the stories of the Mahabharata and Ramayana. A collection of Pictures is used to tell the story, which unfolds in the form of songs supported by the music of traditional instruments such as veena, taal and hudak.

The Ganjifa

Ganjifa are handmade playing cards which were earlier used by the Royal family of Sawantwadi and have reached several museums all over the world now. These cards are made from circular pieces of paper on which intricate designs of Dashavatara (Ten incarnations of Lord Vishnu) are hand-painted.

Bhitti Chitra

Bhitti Chitra is an art style that depicts religious themes on the walls of houses or temples. The Matheran or Mahatma communities, who are well-known for their mineral-painted depictions are traditional Bhitti Chitra artistes.

PERFORMING ARTS

Maharashtra has a rich heritage of performing art forms like singing, dance, puppetry, theatre, which are stunning and vibrant.

Tribal Music

The tribes of Bhil, Mahadev Koli, Gond, Warli, Kokna, Katkari, Thakur, Gavit, Kolam, Korku, Andh, Malhar and Pardhi, are concentrated mostly in the districts of Khandesh, Kolaba, Nashik, and parts of Pune and Ahmednagar. An important feature of their music is a close blend of movements and vocals.

Nandiwala

The nandiwala is a specialist performer who presents animal shows.

Bahuroopi

The term literally means one with many disguises as the performer parades in different disguises impersonating pregnant women, young mothers, etc. He is a devotee of cult deities like Bahiroba, Khandoba, Jakhai and Janai, and his songs, full of verse and rhymes, are a humorous invitation to marriage. As this form is drama-oriented, the recitation has a quick, delightful tempo. No musical instruments are employed.

Dhangari Ovyā

This movement-oriented song is associated with goatherds (dhangars) and centred on Biruba, an incarnation of Lord Shiva.

Devotional Music

Devotional music has contributed immensely to music in all regions through its quality and accessibility. Firstly, it explores varied vocalising modes such as chanting, recitation and singing, as also the solo and choral format, and secondly it employs instrumental resources judiciously. The ektari (one-string drone) provides melodic support, while the mridang (double-sided horizontal drum), taa/ (cymbals), chiplya (clappers) take care of the rhythm aspect. Cycles of four and eight are commonly used for rhythm. Formats such as bhajan, kirtan, sankirtan, or gayan have evolved in varied combinations. In addition, a whole array of forms, including dhavale, abhang, gaulan, bharud, stotra, arati, shloka, ovi, karunashatak, phatka, katav and virani have been developed. Various religious movements (Sampradaya), such as the Samartha, Datta, Warkari, and others have further added to the spectrum of the category. Kirtan has about eight varieties in Maharashtra alone.

Devotional Dance Forms

The bharud and the kirtan are spontaneous devotional dance forms. In bharud, the bharudkar (performer) sings the opening line, then preaches delivering a spiritual message, and between and after indulges in dancing. The dance movements are natural, encompassing swaying hand movements and spontaneous little jumps on the beat, all to the rhythm of the pakhawaj (a kind of drum) and the cymbal, the warkari kirtan or dindi dance is performed during the Pandharpur pilgrimage. The dance is not choreographed but is extempore with an overflow of devotional expressions of the warkari (pilgrims), ardent devotees of Lord Vitthal. The participants generally fall into two rows facing one another. The mridanga and veena players who lead the dance walk between the rows. Other devotional folk-dance forms are fugdi, zimma, pinga, atyapatya, lagori and chendufali.

Kaleidoscope

1. Rathwa ni Gher: Trinal dance of Rathwas

The Rathwas, who dwell in & Rath-Vistar, the hilly area of the southeastern part of Gujarat state, perform the Rathwa ni Gher dance on the occasion of Holi (festival of colours) also known as Kavant festival, named after the place where the Holi carnival takes place. The Gher (dance with music) performances begin on Dhulendi, which is, literally, 'the day of flying coloured dust'. This is the day when people smear each other with colour powder. The festivities last for five days during which the Rathwas observe fast and abstain from sleeping on cots, washing clothes and bathing. Both men and women perform the Gher together, in groups of 20 to 25. Of all Rathwa dances performed on various occasions linked with the cycle of seasons, Rathwa ni Gher stands out as exquisite, colourful and spectacular. The intricate make-up, the synchronised footsteps, vigorous

whirling of the dancers and the mesmerising symphony created through indigenous musical instruments show how antique and refined the dance form is it constitutes the Rathwas' creative expression of their religiosity, cultural identity and understanding of nature.

2. "Sankheda Nu Lakh Kam: Lacquered turned wood furniture'ot Sankheda

Sankheda, a small town in the eastern region of Gujarat derives its name from 'sangheda', the word for a lathe in the Gujarati language.

The town has about 80-100 families belonging to the 'Kharadi-Suthar' community identified with the occupation of wood turning. Lacquered, turned wood furniture with hand-painted motifs and traditional method of ornamentation, popularly known as Sankheda furniture, is thought to have been produced in the town from about 1855.

The traditional craft process of making Sankheda furniture involves shaping and painting the members while the craftsman is turning the lathe. He wields the brush with great mastery to map the patterns freehand, achieving symmetric and even contours without using any measuring device or markings. As most of the craftsmen in Sankheda town are involved in this craft it gives them a strong sense of community identity and continuity.

The ornate nature of the product lends itself to becoming a visible symbol of expression that has been identified as Gujarati within its local precinct and elsewhere. There is a wide range of furniture items produced including child's cradles, child's walkers to chairs, tables and large swings.

3. KalariPAYATTU- Kerala

Kalaripayattu is the martial art originated and popularly practiced in Kerala. Mythology has it

that the warrior sage Parasurama is the promulgator of Kalaripayattu.

Kalari is the Malayalam word for a traditionally built gymnasium to teach the martial art known as Pavattu. The four stages of Payattu are: a) Maipayattu – Body conditioning exercises b) Kolthari - Use of wooden weapons c) Angathari- Use of sharp metallic weapons d) Verumkai - Bare-handed defense and attack.

Women also underwent training in Kalaripayattu, and still do so to this day. Following are the major ethnic style of Kalaripayattu existing in the three regions of northern Kerala (Malabar). (1) Vattenthirippu Style (2) Arappukkai Style (3) Pillathangi Style.

Temple Inscriptions of Tamil Nadu

There are more than 50,000 lines of inscriptions in Tamil Nadu temples. None of them are concerned with religion, philosophy or mythology. They present the diverse nature of issues that were present in around 1000 years ago in a typical Tamil Nadu village. Most inscriptions deal with local administration of land and water. They are about disputes or allocation or gifts. They give us a lot of information on how land was cultivated, how water was conserved and used. The diversity of inscriptions is such that we also get to know some social customs.

Memorial Stones of Jammu & Kashmir

The earliest examples of memorial stones recorded from Kashmir date back to circa 2nd 3rd century CE. Seen in every nook and corner of the Valley, these memorial stones reflect a widespread practice based on the tenets of 'hero worship' as well as 'ritual death' like 'Praya' and Sati.

The widespread practice of raising memorial stones seems to have been discontinued after Muslim rule in the 14th century.

Found all over Jammu region, memorial stones provide an insight into the ethnic character, customs, belief and practices of Dogras, who have a distinct identity, language and traditional mode of living. Despite continuous political instability in the area since ancient times, when it came to social mores the martial communities of Dogras adhered to a set of values with its emphasis on valour, honour and chivalry.

Sati Stones

The 'Mohras' of ladies called as Satis, Shilvantis, Syabatis are one of the most commonly found forms of memorial stones. This category of memorial stones related to the age-old practice where women used to immolate; with her dead husband (Sahagamana) or after receiving the news of the death of her husband (Anugamana), or at the death of a brother, son or any other hero or to save her honour or of the family, clan, village or for some social cause.

Such stones depict a figure of standing women holding a kalasha in one hand while the other hand is raised quite high. Sometimes, in later varieties, she is even shown holding a fan in her one hand.

Concept of Hatya

The memorial stones also are raised in the honour of a dead ancestor, or one who has died an unnatural death or died for a cause or all those whose spirits demand setting up of a mohra. The wish of the spirit of the dead to set up a mohra so that it rests in peace or appeased is known through dreams of a family member or a relative or all those who get affected by the turn of untoward events in their day to life and linked with the wandering spirit.

The ultimate confirmation is done through a ritual of 'jatar' or 'kan cchatna', where a

medium called as dayala or doala goes into a trance at the request of the affected party and makes known the wish of the dead spirit by a spiritual communion. This particular shamanistic belief is a commonplace factor of the life of the Dogras.

Memorials for the Childless

Another form of memorial stones which were raised in the past was for those family members who die as childless. Locally called as 'afar' mohras, in these memorial stones a half-standing man with a folded hand is shown. These stones are not kept inside the house as there is no one to remember them. These mohras are worshipped on special sacred days and festivals. The stone is washed and filak of sindhoor is applied to it. Some portion of new crop or food made for happy occasions is first offered to it, as he is also a shareholder of the family land.



Rebooting Rural Economy

The economic behavior of the developed and developing countries have been hugely hit by the pandemic COVID-19. India, with its visionary steps in all segments of the economy, has been taking many hold steps to sustain the economy during the crisis.

With many strategic and utilitarian schemes aimed at rebooting and boosting the rural economy to achieve doubling of farmers' income, the government has now written a new chapter in the history of Indian economy by launching Aatmanirbhar Bharat Abhiyaan (Self-Reliant India Mission) to accelerate the pace of growth in rural economy by introducing systemic changes in the near future.

COVID-19 Pandemic and the Economy

With the outbreak of COVID-19 pandemic, the world has witnessed unprecedented crisis in the areas of consumption, manufacturing, exports, and capital flows, which has posed numerous challenges before the economy in general and the rural economy in particular.

Considering the impact of slowdown on these four issues, the Government of India launched 'Self-Reliant India Mission' with special focus on health care, employment and financial support.

Doubling of Farmers' Income (DFI) by 2022

The Government of India has set a target of doubling the farmers' income (DFI) by the year 2022. To administer this strategically, the Government has set up the Inter-Ministerial Committee on Doubling Farmers' Income (DFI) to examine and prepare the blueprint considering all the issues and challenges relating to DFI. The Committee identified seven sources to double farmers' income by 2022 which include-

- (i) Within the Domain of Agriculture
 - a) Improvement in crop productivity.
 - b) Improvement in livestock productivity.
 - c) Efficiency in the use of resources/ savings in the cost of production.
 - d) Increase in the cropping intensity.
 - e) Diversification towards high value crops.
 - f) Improvement in real prices received by farmers.

ii) Outside the Domain of Agriculture

Shift from farm to non-farm occupations (like backyard poultry; goat rearing, fisheries; dairy; vegetables-fruit, and food processing, etc. which are high value-yielding).

The Government constituted an Empowered Body on January 23", 2019 for monitoring the implementation of the recommendations of the DFI Strategy.

Several steps have already been taken to implement the recommendations of DFI Committee (to double the farmers' income). These include:

- (a) Advocating progressive market reforms through the State Governments and Union Territories.
- (b) Supporting contract farming through the State Governments by promulgating of Model Contract Farming Act, Up-gradation of Gramin Haats to work as centers of aggregation and for direct purchase of agricultural commodities from the farmers.
- (c) Providing e-NAM to farmers which is an electronic online trading platform
- (d) Distributing soil health cards to farmers so that the use of fertilizers can be rationalized.
- (e) Increasing water efficiency through Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)- "Per drop more crop"
- (f) Better insurance coverage to crops for risk mitigation under Pradhan Mantri Fasal Bima Yojana (PMFBY).
- (g) Making loans available to farmers at a reduced rate of 4 percent per annum and extending the facility of Kisan Credit Card (KCC) for animal husbandry and fisheries related activities to the farmers
- (h) Increase in the Minimum Support Price (MSPs) for all Kharif and Rabi crops.
- (i) Providing old age pension of Rs. 3000 to the eligible small and marginal farmers and cover around 5 crore beneficiaries in the first three years.

Aatma Nirbhar Bharat Abhiyaan

India has faced the COVID-19 situation with fortitude and a spirit of self-reliance, that is



evident in the fact that from zero production of Personal Protection Equipment (PPE) before March 2020, India today has created a capacity of producing 2 lakh PPE kits daily, which is also growing steadily.

Additionally, India has demonstrated how it rises up to challenges and uncovers opportunities therein, as manifested in the re-purposing of various automobile sector industries to collaborate in the making of life-saving ventilators. The clarion call given by the Hon'ble PM to use these trying times to become Atmanirbhar (self-reliant) has been very well received to enable the resurgence of the Indian economy. Unlock 1 Guidelines have been issued to enable resumption of economic activities while maintaining abundant caution thus allowing graded easing of restrictions.

The Five pillars of Atmanirbhar Bharat focus on:

- (a) Economy
- (b) Infrastructure
- (c) System
- (d) Vibrant Demography and
- (e) Demand

The Five phases of Atmanirbhar Bharat are:

- (a) Phase-I: Businesses including MSMEs
- (b) Phase-II: Poor, including migrants and farmers
- (c) Phase-III: Agriculture
- (d) Phase-IV: New Horizons of Growth
- (e) Phase-V: Government Reforms and Enablers

Highlights

- Increase in borrowing limits: The borrowing limits of state governments will be increased from 3% to 5% of Gross State Domestic Product (GSDP) for the year 2020-21.
- Privatisation of Public Sector Enterprise (PSEs): A new PSE policy has been announced with plans to privatise PSEs, except the ones functioning in certain strategic sectors which will be notified by the government. In strategic

sectors, at least one PSE will remain, but private sector will also be allowed.

- Collateral free loans for businesses: All businesses (including MSMEs) will be provided with collateral free automatic loans of up to three lakh crore rupees. MSMEs can borrow up to 20% of their entire outstanding credit as on February 29, 2020 from banks and Non-Banking Financial Companies (NBFCs).

- Corpus for MSMEs: A fund of funds with a corpus of Rs 10,000 crore will be set up for MSMEs. This will provide equity funding for MSMEs with growth potential and viability. Rs 50,000 crore is expected to be leveraged through this fund structure.

- Subordinate debt for MSMEs: This scheme aims to support to stressed MSMEs which have Non-Performing Assets (NPAs). Under the scheme, promoters of MSMEs will be given debt from banks, which will be infused into the MSMEs as equity.

- Schemes for NBFCs: A Special Liquidity Scheme was announced under which Rs 30,000 crore of investment will be made by the government in both primary and secondary market transactions in investment grade debt paper of Non-Banking Financial Companies (NBFCs)/Housing Finance Companies (HFCs)/Micro Finance Institutions (MFIs).

- Employee Provident Fund (EPF): Under the PM Garib Kalyan Yojana, the government paid 12% of employer and 12% of employee contribution into the EPF accounts of eligible establishments for the months of March, April and May.

- Statutory PF contribution: Statutory PF contribution of both the employer and employee will be reduced from 12% to 10% each for all establishments covered by EPFO for next three months. This scheme will apply to workers who are not eligible for the 24% EPF support under PM Garib Kalyan Package and its extension. However, Central Public Sector Enterprises (CPSEs) and State Public Sector Units (PSUs) will continue to contribute 12% as employer contribution.

- Street vendors: A special scheme will be launched within a month to facilitate easy access to credit for street vendors. Under this scheme, bank credit will be provided to each vendor for an initial working capital of up to Rs 10,000.

- Expediting payment of dues to MSMEs: Payments due to MSMEs from the government and CPSEs will be released within 45 days.

- Insolvency resolution: A special insolvency resolution framework for MSMEs under the Insolvency and Bankruptcy Code, 2016 will be notified.

- Disallowing global tenders: To protect Indian MSMEs from competition from foreign companies, global tenders of up to Rs 200 crore will not be allowed in government procurement tenders.

- Reduction in TDS and TCS rates: The rates of Tax Deduction at Source (TDS) for the non-salaried specified payments made to residents and Tax Collected at Source (TCS) will be reduced by 25% from the existing rates. This reduction will apply from May 14, 2020 to March 31, 2021. This is estimated to provide liquidity of Rs 50,000 crore.

- Ease of doing business for corporates: Direct listing of securities by Indian public companies in permissible foreign jurisdictions will be allowed. Private companies which list Non-Convertible Debentures (NCDs) on stock exchanges will not be considered listed companies.

- Concessional Credit Boost to farmers: Farmers will be provided institutional credit facilities at concessional rates through Kisan Credit Cards. This scheme will cover 2.5 crore farmers with concessional credit worth two lakh crore rupees.

- Agri Infrastructure Fund: A fund of one lakh crore rupees will be created for development of agriculture infrastructure projects at farm-gate and aggregation points (such as cooperative societies and Farmer Producer Organizations). Farm gate refers to the market where buyers can buy products directly from the farmers.

- Emergency working capital for farmers: An additional fund of Rs 30,000 crore will be released as emergency working capital for farmers. This fund will be disbursed through NABARD to Rural Cooperative Banks (RCBs) and Regional Rural Banks (RRBs) for meeting their crop loans requirements.

Agriculture Role in the Indian Economy

The agriculture sector contributes to 265 billion dollars which is 17 percent of GDP and employs ~60-70 percent of the Indian population (directly or indirectly). The country houses nearly 1/4th of the world's farmers and contains ~48 percent of the world's arable land. Currently, India is the world's top producer of pulses, milk; 2nd largest producer of wheat, rice, vegetables, fruits and the 3 largest producer of food-grains. While the country has made significant progress in many off-farm sectors like the service and industrial-production, agriculture continues to be the main lifeline, especially for the 68.84 percent Indians living in rural areas.

According to NITI Aayog, the agriculture sector is a silver lining for current Indian economy and is supposed to grow at the rate of three percent in the fiscal year 2020-21, and is currently growing 60 percent more than the non-agriculture sector and is estimated at 40-60 percent higher than the last year. Its share in the economy of India is around 17 percent, which is much higher when compared to the manufacturing sector. As the market is intact and prices have not crashed, it is expected to boost the Indian economy further.

India's Position in the World Economy

We are at an opportune time to tap the world food market as a supplier. For this to happen and to meet the global standards, we need to

massively upgrade our agricultural infrastructure and available technologies.

In the past, the biggest roadblock to exports has been at the policy level and the food shortage mindset; but now farmers are ready to take on the world market with newly introduced initiatives and policy reforms. Given that domestic demand may be curtailed for a few year till employment and income normalises, we have to inspire the agriculture sector to make investments and enhance productivity. It is right time for its high graded entry into the world market. The first and foremost requirement is to accept the role the agriculture can play in revitalising the economy in the years to come.

Concerns and Issues

Home-returning of immigrant laborers due to COVID-19 has become a major challenge for our State's economy, social fabric and general law & order. Since the number of such laborers is huge, providing them employment based on their skills is the next evident step. If we use this challenge as a creative opportunity to enhance our agri- based economy, there are immense possibilities of progress.

Obstacles during Crisis

COVID-19 underlined the gaps in our food system in the light of the pandemic i.e. disruptions in the food supply chain, reduction in labor forces, rising prices of staples hitting lower-income communities, supply shock, production slowdown and subdued demand. The vulnerability of our modern food systems to climate disruptions is a widely known fact. We need to make farming more viable for small land holders by creating a climate-resilient low-cost farming system and drive our own Agri-market with robust demand and expanding export.

The Way Forward

The most fundamental step that needs to be taken during this slowdown to leverage the potential of the agriculture sector is to make the farming sector economically viable in the coming months. This is an opportunity to promote rural reform through better infrastructure and policy to absorb more workforce. The policy framework needs to be more supportive to agriculture. Developing skills amongst low-income farmers in modern farming and other agricultural activities is a right move towards self-sufficiency.

The need of the hour is to reskill these laborers depending on their existing skillsets, experience and education. The worker must be trained in the new priorities area and we must value their potential. We can broadly categorise them in four types:

1. Unskilled (willing to work hard)
2. Semi-skilled (not always ready to work as a plantation of tress labor)
3. Skilled (in some specific areas).
4. Women worker (housewife and involved as household help) and persons involved in street food vending

Rural Self-Reliance Strategies

The efforts made for the resurgence of the rural economy have been continuous and an on-going process. The Government's focus on mitigating the adverse impact of COVID-19 pandemic on the economy had started at the very beginning of the lock-down period. While the 'Atmanirbhar Bharat' programme shall take care of the immediate needs of the people, other measures such as skill-based work for returnee migrants, investments in agriculture, and balancing the supply and demand factors; shall be key breakthroughs for a self-reliant rural economy.

The COVID-19 pandemic has adversely affected the Indian economy, including rural economy.

To overcome this distress and to resurrect the rural economy back on to the growth trajectory, has become Government of India's priority. The pandemic and the resultant pause of economic activities have witnessed huge reverse migration from urban to rural areas.

Announcements

In May, 2020, Prime Minister announced a holistic strategy to achieve self-reliance or Aatmanirbhar Bharat. The measures announced aimed at taking care of the immediate needs of the people in terms of food and cash. They also proposed to address long-term issues entailed in providing healthcare, education and employment, thereby tackling both demand and supply-side issues for economic resumption. The efforts made for the resurgence of the rural economy have been continuous and an on-going process. While the sheer dimension and the timeliness of these announcements are laudable, the magnitude of the issues requires a comprehensive and focused approach.

Food, Agriculture and Related Sectors

The Central Government's focus on mitigating the adverse impact on the rural economy had started at the beginning of the lock-down period. In April, 2020, the launch of 'Kisan Rath' mobile app was aimed at facilitating transportation of foodgrains and perishables during the lockdown so that issues faced by both the producers and the consumers could be mitigated. Besides, All India Agri Transport 24 x7 Call Centres too were launched early on during the lockdown period.

The Ministry of Agriculture and Farmers Welfare's initiative towards formation of 10,000 new Farmers' Producer Organisations (FPOs) will be a rural game-changer.

Attracting investments, especially in the agriculture sector, has become a challenge in the pandemic period. At the end of June, 2020, the Cabinet approved the setting up of Animal

Husbandry Infrastructure Development Fund of Rs. 15,000 crore. The Fund will be useful for ensuring enhanced investments, including private sector investments, in dairy, meat processing and animal feed plants.

The amended 'Essential Commodities' Act proposes to balance producers' and consumers' interests. The amended Act would reduce regulatory interference by removing cereals, pulses, oilseeds, edible oils, onions and potatoes from the list of essential commodities, which in turn would be a catalyst in attracting more investment into this sector. For the consumers, the amendment provides that in extraordinary situations such as war, famine, price rise and natural calamity, regulation would be possible.

In May, 2020, the Department of Food and Public Distribution has allocated 8 lakh MT of foodgrains to all States/UTs to address issues faced by migrants. On 30th June, 2020, the Prime Minister extended the food security under Pradhan Mantri Garib Kalyan Anna Yojana till the end of November, 2020.

Pradhan Mantri Garib Kalyan package is aimed at distributing free food grains and providing cash to women and poor senior citizens and farmers, by using Direct Benefit Transfer.

Rural Livelihood

A major reason for rural-urban migration is the lack of job opportunities in the rural areas. The natural corollary to meet the reverse migration underscores the importance of providing gainful employment and to make the rural economy self-reliant. In this context, the recent step-up of Rs. 40,000 crore in the allocation of MGNREGA is commendable.

The Garib Kalyan Rojgar Abhiyaan launched on 20th June, 2020, not only aims at providing employment opportunity to the reverse migrants, but also constructing durable public works. The Abhiyaan is to be implemented over

125 days in 116 districts with a financial outlay of Rs. 50,000 crore.

A large number of infrastructure projects have been identified under the Abhiyaan, including rural housing, plantations, provision for drinking water, toilets, rural mandis, rural roads, anganwadis, etc. The focus of the Jal Jeevan Mission within the Abhiyaan is to provide household tap connections to every rural household. The Mission builds on the foundation laid by the Central Government's time-bound, mission-mode water conservation campaign, i.e, Jal Shakti Abhiyan, launched in 2019.

Conclusion

The rural reform measures have attempted to balance the supply and demand side factors. Just like mapping the skills of the returnee migrant labour vis a vis the demand for works is the need of the hour, it is also essential to assess whether the agricultural and non-agricultural output can be exported, especially to countries where there is a growing demand, keeping in view that economic activities have been on a standstill mode in a large number of economies.

The successful implementation of the schemes and measures depends largely on convergence of efforts of the Central Government and State Government and the efforts of various Departments and the ease with which skills of returnee migrants are matched with the skills required at various notified public works.

The measures are potent means of instilling resilience in the rural economy. Being self-reliant does not imply having inward-looking policies, rather it means capitalizing on existing inward strengths and prudently making use of every opportunity, while overcoming weaknesses and threats.

Empowering Migrants

The Government has been extremely proactive in taking steps to ensure that migrants' lives as well as livelihoods are taken care of in a balanced manner. The Garib Kalyan Rojgar Abhiyaan launched by the Prime Minister is specifically for migrant workers who have returned to their villages owing to the dearth of livelihood opportunities in urban areas. The Abhiyaan focuses on durable rural infrastructure and providing modern work for migrant labour is being done to help them work closer home.

Policies aimed at social welfare have the potential to turn formal citizenship to substantive citizenship. This resonates with the ideal of welfarism in our constitution, Part IV of our Constitution under Directive Principles of State Policy. Article 41 states that "The State shall, within the limits of its economic capacity and development, make effective provision for securing the right to work, to education and to public assistance in cases of unemployment, old age, sickness and disablement, and in other cases of undeserved want."

Garib Kalyan Rojgar Abhiyaan

The Government of India launched the Garib Kalyan Rojgar Abhiyaan (GKRA) initiative to tackle the impact of COVID-19 on shramik (migrant) workers in India. It is a rural public works scheme which was launched on 20 June 2020 with an initial funding of ₹ 50,000 crore (US\$7.0 billion).

GKRA aims to give 125 days of employment to 670,000 migrant workers, approximately two-third of the total migrant labourer force that has gone back to rural areas. The scheme covers 116 districts in six states, Bihar, Uttar Pradesh, Madhya Pradesh, Rajasthan, Odisha and Jharkhand. The scheme is a joint effort by 12 different Ministries/Departments and covers 25 categories of works/ activities.

The Garib Kalyan Rojgar Abhiyaan has the following objectives:

- (a) Provide for immediate employment opportunities to returnee migrant workers and similarly affected rural population.
- (b) Saturate villages with public infrastructure and assets.
- (c) Set the stage for enhancing longer term livelihood opportunities.

Benefits of the Abhiyaan

- The programme will bring economic, social and psychological security to a large proportion of migrant labourers who have been shaken due to the devastating effects of the pandemic.
- The programme will aid in creating sustainable infrastructure across myriad sectors. This will help the rural economy not only in the immediate term but also in the future when the effect of the pandemic recedes.
- One of the biggest challenges facing the economy has been suppression of economic demand. The infusion of funds (50,000 crores) over 125 days will boost rural demand in these 6 states, and this could have a multiplier effect, increasing demand in general.
- In the absence of this programme, there would have been a rise in rural unemployment. There was also a fear of the agriculture sector witnessing disguised unemployment. This campaign addresses this issue through the exercise of skill mapping. It will not only lead to effective utilisation of the exposure and the experience of the migrant returnees, but will also further hone their skills.
- The programmes chosen for targeted delivery already have processes in place due to its pre-conception. Given the need of immediate relief for migrant labourers, quick delivery of opportunities under this program will augur well for the well-being of these workers.
- The design of the programme has been conceived in mission mode with outcome indicators being simultaneously monitored on a dashboard. This will set a precedent for mobilizing social protection programs across the country in times of distress and has the

potential to become a model for future challenges that the country may face.

- The programme will encourage co-ordination and collaboration between Union, State and Local Governments pushing the spirit of Cooperative Federalism.

MSMEs-The Catalyst of Development

Micro, Small and Medium Enterprises (MSMEs) are amongst the life line for the self-reliance in the rural India. Today, MSMEs are the strongest drivers of economic development, innovation and employment for the global economy. Further, these enterprises play an important role as a place for entrepreneurship and business skill development, especially in rural areas due to their easy accessibility. The government is continuously focusing on this vital sector of our economy and has taken several measures to strengthen the Medium, Small and Micro Enterprises.

Growth and Development of MSMEs

The MSME sector also contributes in a significant way to the growth of the Indian economy. The country has vast aggregates of 6.33 crore MSMEs out of which 99.4 percent are micro-enterprises. The sector contributes about 45 percent to manufacturing output, more than 40 percent of exports, over 28 percent of the GDP while creating employment for about 111 million people. The value of Micro Small and Medium Enterprises (MSME) related products exported during 2017-18 reached \$124.4 billion as per data received from the Directorate General of Commercial Intelligence and Statistics (DGCIS). As per the data available with Central Statistics Office (CSO), Ministry of Statistics and Programme Implementation (MoSPI), the contribution of MSME Sector in the country's GVA and GDP, at current prices.

The MSME sector tends to play a great role in employability in the rural areas to augment the agro-based economy. The Periodic Labour Force Survey (PLFS) of the National Sample Survey Office (NSSO) pegged the unemployment rate in the country in FY18 at 5.3 percent in rural India and 7.8 percent in urban India, resulting in overall unemployment rate of 6.1 percent.

Presently, the Ministry of Micro Small and Medium Enterprises is implementing the following programmes for the growth and development of MSME sector in the country.

1. Prime Minister's Employment Generation Programme

This is a credit-linked subsidy programme aimed at generating self-employment opportunities through establishment of micro-enterprises in the non-farm sector by helping traditional artisans and unemployed youth. Since the inception of the scheme in 2008-09, a total of 5.45 lakh micro enterprises have been assisted with a margin money subsidy of Rs.12,074.04 crore, providing employment opportunities to an estimated 45.22 lakh persons till 31.03.2019.

2. Scheme of Fund for Regeneration of Traditional Industries

It is a cluster-based scheme for development of khadi, village industries and coir clusters by providing them with improved equipments, common facilities centers, business development services, training, capacity building and design and marketing support, etc,

3. A Scheme for Promotion of Innovation, Rural Industry and Entrepreneurship

This scheme was launched in 2015 to set up a network of technology centres, to set up incubation centres, to accelerate entrepreneurship and also to promote start-ups for innovation and entrepreneurship in agro-industry. The scheme, 74 Livelihood Business Incubation (LBI) centres and 11 Technology

Business Incubators have been approved since its inception.

4. Coir Board

The Ministry of MSME, through Coir Board, is also implementing various Schemes/programmes to assist entrepreneurs to set up new MSMEs in all coconut producing States. Under Coir Vikas Yojana, 36,30,653 employment opportunities have been created since 2014-15 till 2018-19 in the Coir Sector.

5. Credit Guarantee Scheme for Micro and Small Enterprises

The scheme facilitates credit to the MSE units by covering collateral-free credit facility (term loan and /or working capital) extended by eligible lending institutions to new and existing micro and small enterprises. The Scheme has extended guarantee cover to over 35 lakh enterprises leading to approximately one crore employment generation opportunities.

6. Credit linked Capital Subsidy Scheme

This scheme facilitates technology upgradation of small scale industries, including agro & rural industrial units by providing 15 percent upfront capital subsidy, limited to maximum of Rs.15 lakhs.

The Road Ahead

There is need to create skill training hubs in each district of the country with a dedicated nodal office in each district by roping in all the stakeholders.

Krishi Vigyan Kendras and Industries Department with their presence in each district of the country should have need based, area specific and continuous round the year training programmes of one month to one-year durations for the youth and the women. There is need to establish higher institutions of learning to impart knowledge and skills that

can train the manpower in the efficient management of resources, human resource issues, tax laws, labour laws, etc. The course curricula should also be customized to suit the needs of the MSMEs specifically like MBA programme of two years in entrepreneurship etc.

Innovations, infusion of new technologies, skilled manpower and availability of finances in the MSMEs can transform the lives in the rural landscape of the country. To conclude, we need to remember the vision of the Central Government 'our small hands to make you large'- the champions.



Atma Nirbhar in Defence Technology

Following Prime Minister Narendra Modi's "Vocal for Local" call and launch of Atma Nirbhar Bharat Abhiyan (Self-Reliant India Campaign), the Ministry of Defence (MoD) has tweaked its capital acquisition manual to promote greater self-reliance in defence production.

- On July 27, it released the draft Defence Acquisition Procedure 2020 (DAP-2020) for public comments. The draft incorporates suggestions received from various stakeholders on a previous draft – the draft Defence Procurement Procedure (DPP-2020) – which was also put in the public domain.
- Among other features, the draft DAP-2020 improvises the existing DPP that facilitates the acquisition of systems designed and developed by the Defence Research and Development Organisation (DRDO), Defence Public Sector Undertakings (DPSUs) and the Ordnance Factory Board (OFB).

Since its creation in 1958, the DRDO has been at the forefront of indigenous design and development of defence equipment. The organisation, which has 24,700 employees, including 7,300 scientists, and a budget of Rs 19,327 crore (or four per cent of the MoD's budget for 2020-21), is known for many remarkable achievements in strategic programmes, a glimpse of which was the recent successful conduct of Mission Shakti, an anti-satellite (ASAT) missile test.

However, in regard to conventional arms, there has been a deep-rooted perception that the DRDO has not been so successful, even though the organisation, with all its human resource and budgetary constraints, has designed and developed a range of complex systems including Light Combat Aircraft (LCA), Main Battle Tank Arjun, Pinaka multi-barrel rocket system, advanced towed artillery gun, and myriad other weapons and sensors. In terms of value, the DRDO-designed products (other than strategic systems), whether inducted or in the process of induction, amount to Rs 2,65,007 crore, as of 2017.2

Notwithstanding these achievements, the ultimate users, i.e., the armed forces, often complain about time and cost overruns and performance shortfall of the equipment designed and developed by the DRDO.

The involvement of various stakeholders, which include armed forces and production and quality assurance agencies, brings an element of diffused accountability as agencies involved are accountable to different administrative heads.

The lack of synergy among stakeholders has been commented upon by various authorities, including the Comptroller and Auditor General (CAG) of India, for its adverse impact on timely completion of projects.

More significantly, the lack of synergy has sometimes generated rigid institutional biases,

leading to undue delay in placement of orders even after projects have gone through the rigorous process of development and testing. This not only demotivates scientists and the industry involved in the project but directly affects India's self-reliance as the budget which could have been utilised to procure home-grown technologies is ultimately spent on importing arms from external sources.

Significantly also, the chapter provides for Joint Project Management Team (JPMT) to bring a semblance of synergy among various stakeholders. Comprising representatives from the concerned armed force, design house, quality assurance and maintenance agencies and the Acquisition Wing of the MoD, the JPMT is intended to facilitate smooth progress of projects.

While the abovementioned steps stipulated in the chapter are a move in the right direction, they need to be strengthened further to make procedures more robust and conducive for timely completion of projects.

One key area which needs improvement pertains to the power of the JPMT. In its present form, the JPMT can, at best, discuss issues arising during the developmental process without any power to take decisions on its own to facilitate timely completion of the project. The real power is vested with higher authorities who are not directly involved in the project's day-to-day execution. In short, the JPMT is not empowered to be responsible to deliver projects on time and to the budget.

Another area that needs refinement pertains to trial and testing of the equipment. The draft chapter in the present form lays emphasis on a multi-layered trial evaluation – developmental trials, user assisted technical trials, field evaluation trials, staff evaluation, and acceptance trials - before a product is finally inducted.

Such a multi-layered trial provision does not necessarily add value; rather, they consume time and money and not necessarily in the best interest of product development. An empowered JPMT with the responsibility to undertake trial evaluation in its entirety would shorten the process, quicken the developmental pace, and enable India to become Atma Nirbhar in defence technology.

India's Chabahar Dilemma

India has been a key stakeholder in the development of Iran's strategic port of Chabahar. A landmark India-Afghanistan-Iran trilateral agreement on Establishment of International Transport and Transit Corridor was signed during Prime Minister Narendra Modi's visit to Tehran in May 2016.

Many important steps have since been taken to speed up the development of the port and realise its full potential. However, growing United States (US)-Iran confrontation and imposition of harsh economic sanctions by the US on Iran under its "maximum pressure" policy has adversely affected New Delhi's desire to convert its commitments into concrete actions on ground.

Advancing Cooperation on Chabahar

Chabahar is considered to be of great strategic value to India. It not only provides access to Afghanistan but is also a part of the International North-South Transport Corridor (INSTC), linking India to Eurasia. To improve regional connectivity with South-West and Central Asia, the lease contract for two terminals and five berths at the Shahid Beheshti Port in Chabahar was signed in 2016 between Iran's Ports and Maritime Organisation (PMO) and Indian Ports Global Limited (IPGL), according to which India got the right to take over the operations of the port for 18 months.

Phase-I of the Shahid Beheshti Port was inaugurated in early December 2017 by Iranian President Hassan Rouhani, opening a new

strategic route that connected India, Iran and Afghanistan bypassing Pakistan. In this context, a major achievement for India came in the form of operationalisation of the Chabahar Port in December 2018.

Bilateral relations between the two countries gained new momentum when President Rouhani visited India in February 2018. This was the first visit by an Iranian President to India in 10 years. It was soon followed by the visit of Iranian Foreign Minister Mohammad Javad Zarif to New Delhi in May 2018.

India sent its first consignment of wheat to Afghanistan in October 2017 through Chabahar. In early February 2019, Afghanistan started exporting goods to India using the port. In November 2019, the Afghan Ambassador to Iran announced that Afghanistan was planning to expand its economic ties by increasing exports and imports through the Chabahar Port.

It is said that Iran is planning to increase the capacity of the Chabahar Port from the current 2.5 million tonnes to 8.5 million tonnes. The Central Bank of Iran (CBI) has also given approval to Afghanistan's Ghazanfar Bank to open a branch at the port.

Meanwhile, India has doubled its allocated funding to reach nearly US\$ 14 million for the development of the port in its national budget bill for 2020. India's commitment to accelerating the development of the port was renewed during the visit of Indian Foreign Minister S. Jaishankar in December 2019. The volume and transit of shipments through the port have increased significantly since 2018. The port has handled 82 vessels, 12 lakh tonnes of bulk cargo and 8, 200 containers since December 2018.

In addition to developing the Chabahar Port, India and Iran had also agreed to develop the 628-km long Chabahar-Zahedan railway line which was to be executed by the Indian

Railways Construction (IRCON) Limited, with a financial commitment of around US\$ 1.6 billion.

India's commitment was based on the Memorandum of Understanding (MoU) signed between IRCON and Construction, Development of Transport and Infrastructure Company (CDTIC) of Iran in May 2016.

Controversy Over Rail Project

Despite India's continued commitment towards the Chabahar Port project and the latter's exemption from the US sanctions, progress in realising the full potential of the port and related commitments by New Delhi has been slow. This can be attributed to myriad factors: harsher sanctions by the US since 2018; technical and bureaucratic issues on both Iranian and Indian sides; apprehensions on part of the private sector to invest in Iran; and finally, the spread of the COVID-19 pandemic.

Two recent developments have brought the India-Iran relations under public scrutiny. In mid-July, a report appeared in media stating that Iran has dropped India from the Chabahar-Zahedan railway line project. A few days later, Iran denied the claim that India has been dropped from the railway project, stating that "vested interests" were behind recent reports.

On July 20, 2020, the Indian Ambassador to Iran, Gaddam Dharmendra, was invited by the Iranian Deputy Minister of Roads and Managing Director of the Iran Railways, Saeed Rasouli, to review the ongoing co-operation on the Chabahar-Zahedan railway project.⁸ According to an Iranian official, it was expected that, in addition to investment in Chabahar port, India could also play a more crucial role in funding and constructing this strategic transit route from Chabahar to Zahedan, and from Zahedan to Sarakhs at the border with Turkmenistan, which in the absence of active Indian engagement and partnership is currently under

construction by Iranian funding and engineering capacities."

On July 7, 2020, Iran began the track-laying operations for the Chabahar-Zahedan railroad, which is planned to be completed by March 2022. Its short-term economic goal is estimated to be the transportation of 927,000 passengers and 2.8 million tonnes of cargo by March 2022. It was further noted by the Iranian official that as far as the Chabahar Port is concerned, Iran has always been committed to its common vision and partnership with India to develop it.

The second significant development was the Iranian approval of the much-hyped draft strategic partnership with China, whereby both countries propose to take their long-term partnership to a new level through the US\$ 400 billion agreement. It came at a time when Iran is struggling to mitigate the impact of the US sanctions and also when the US-China tensions are running high.

On June 21, Iran's cabinet of ministers approved the final draft of the 25-year strategic partnership agreement with Beijing. According to President Rouhani, this agreement provides "a ground for Iran and China's participation in basic projects and development infrastructure, including the large 'Belt and Road' initiative (BRI), and an opportunity to attract investment in various economic fields, including industry, tourism, information technology and communication." He added that the agreement covers long-term cooperation in the field of energy as well as renewable energy, and joint investment in developing free zones.

China has been intensifying its political, military and economic ties with Iran and the Arab world. There is a view that if China gets a foothold in the development of the Chabahar Port—regarded by many in India as a counterbalance to the Gwadar Port in Pakistan, constructed and run by China as part of the China-Pakistan Economic Corridor (CPEC)—it

could shift the balance of power in China's favour in the Indian Ocean Region (IOR).

Additionally, the emergence of an Iran-China-Pakistan-Russia grouping can be inimical to India's interests. Except for Russia, India has problematic relations with both Pakistan and China. The question that arises, therefore, is: should India be worried about a China-Iran agreement? For now, New Delhi need not read too much into this agreement. The projection of draft bilateral agreement with China at this point of time could be viewed as Tehran's signal to the US administration of its growing proximity with one of America's key adversaries.

It must be noted that the cooperation plan with China is yet to be finalised by the two countries and that its content would be published after it is finalised. Once the text of the agreement is approved by both countries, it would be presented to the Iranian Parliament for approval.

Interestingly, the Chinese media and officials have been silent about this agreement. This silence could be attributed to China's strategy of making grand promises of investing billions of dollars but remaining non-committal when it comes to the actual materialisation of the offer.

Furthermore, in the light of growing criticism from the international community related to the COVID-19 pandemic, for its aggressive role in the South China Sea and beyond, and its on-going trade war with the US, Beijing's priority right now is to improve its image and address problematic relations with the US and the West rather than getting entangled in the Iran-US confrontation.

Amidst all these developments, Iranian Foreign Ministry spokesperson Mousavi emphasised Tehran's multi-vector policy in a tweet on July 25, 2020 stating: "Iran has a longstanding policy of maintaining balanced, friendly relations with all Eurasian and East/South Asian powers."

Our potential long-term cooperation agreements with China and Russia, and our continued joint work with India in Chabahar prove this. We are determined to uphold this policy."15 Such statements are a clear indication of Iran's desire to build ties with key Asian powers to mitigate the impact of sanctions.

