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## Girls Marriage and Age

### In The News

Recently, Prime Minister said that the government will soon decide on revising the minimum age of marriage for women.

### Previous Events

- Government, in June 2020, **set up a Task Force (headed by Jaya Jaitly)** to examine matters pertaining to age of motherhood, imperatives of lowering MMR, improvement of nutritional levels and related issues.
- One of the Terms of Reference of the Task Force is **to examine the correlation of age of marriage and motherhood with:**
  - Health, medical well-being and nutritional status of mother and neonate/infant/child, during pregnancy, birth and thereafter.
  - Key parameters like Infant Mortality Rate (IMR), Maternal Mortality Rate (MMR), Total Fertility Rate (TFR), Sex Ratio at Birth (SRB), Child Sex Ratio (CSR) etc.
  - Any other relevant points pertaining to health and nutrition in this context.

### Argument in favor of increasing legal age for marriage

- **Early marriage denies girls the right to the highest attainable standard of general, sexual, and reproductive health.** It also constrains evolving physical, emotional, and personal maturity required to safely transition to adulthood.
- Girls who get married at a younger age **are not educated properly and do not have access to healthcare**, vaccination, antenatal care, and even facilities for safe delivery and also lose life owing to pregnancy complications.
- **Maternal mortality, infant mortality and nutrition levels of children are dependent on age of mother.**
- Children who are born to mothers who tend to get married at an early age may develop health problems.

- Those who marry later are **more likely than others to have a higher secondary or college education, take on skilling opportunities**, gain a better understanding of the world around them and exercise their voices.
- Marriage at a young age means **not even a quarter of women in India get into the labor force** despite accounting for almost half of the 1.3 billion population.
- It will **do away with the gender gap in the legal age at marriage (21 for male and 18 for female)**, and the underlying social norm which expects women to be younger than men at the time of marriage.

### Issues with increasing legal age for marriage

- **Lack of education, skilling and awareness of rights are not directly related to age only.** Studies have found that age played a relatively smaller role in affecting nutrition levels than did wealth status or education.
- **Child marriage is a social and economic issue.** Despite PCMA, 2006 India is not able to stop child marriages. According to the National Family Health Survey 4 (2015-16), 26.8% of women between ages 20-24 were married before the age of 18.
- To increase the age of marriage to 21 years would mean that **girls will have no say in their personal matters until they are 21.** Child marriage law is used by parents against daughters choosing their own husbands. It has become a tool for parental control.
- The median age at first marriage for both men and women in India has **registered a significant decadal improvement with more people now marrying later** than ever before. Any attempt to leapfrog through quick-fix and ill-conceived punitive measures may considerably reverse these gains.
- There is also an argument that raising the minimum legal age of marriage for women

to 21 years may deny many young women from experiencing pregnancy at these

- **safest ages.** Mortality experienced by the cohort aged 20 years to 24 years (roughly those marrying at ages 18 years and higher) is by far the lowest of all age groups.

## Way forward

- **Incentivising and enabling girls to continue schooling up to Class 12** and helping to enhance their nutrition can stop under-age marriages.
- Efforts to address child marriage in India should be in consonance with the socio-economic realities that **demand investment in education, welfare, and opportunities for women.**
- Noting the law’s patriarchal underpinnings, the 18th Law Commission report (2008) asked for **uniformity in the age of marriage at 18 years for both men and women** and lowering the age of consent to 16 years, a recommendation also of the Justice Verma Committee.

## Project “STARS”

### In The News

The Union Cabinet approved the **STARS project** partially funded by the World Bank under the new National Education Policy to support states in strengthening the school education system.

### About STARS project

- It seeks to **support the states in developing, implementing, evaluating and improving interventions** with direct linkages to improved education outcomes and school to work transition strategies for improved labour market outcomes.
- The overall focus and components of the STARS project are **aligned with the objectives of National Education Policy (NEP) 2020 of Quality Based Learning Outcomes.**
- The **project covers 6 States** namely Himachal Pradesh, Rajasthan, Maharashtra, Madhya Pradesh, Kerala and Odisha.
  - The identified States will be supported for various interventions for improving the quality of education.
  - Besides this project, it is also envisaged to implement a similar ADB funded project in 5 states namely Gujarat, Tamil Nadu, Uttarakhand, Jharkhand and Assam. All states will partner with one other state for sharing their experiences and best practices.
- Around 25 crore students (between the age of 6-17) in 15 lakh schools and over 1 crore teachers will benefit from the programme.
- It would be implemented as a **new Centrally Sponsored Scheme** under Department of School Education and Literacy, Ministry of Education (MOE).
- **It has two major components:**
  - **At the national level**, the project envisages the interventions like
    - ✓ **Strengthen MOE’s national data systems** to capture robust and authentic data on retention, transition and completion rates of students.
    - ✓ **Support MOE in improving states**

**Performance Grading Index (PGI) scores** by incentivizing states governance reform agenda through SIG (State Incentive Grants).

- ✓ **Support MOE’s efforts to establish a National Assessment Centre –PARAKH** (Performance Assessment, Review, and Analysis of Knowledge for Holistic Development).
- ✓ **Contingency Emergency Response Component (CERC)** which would enable it to be more responsive to any natural, man-made and health disasters.
  - **At the State level**, the project envisages intervention like:
    - ✓ Strengthening Early Childhood Education and Foundational Learning.
    - ✓ Improving Learning Assessment Systems.
    - ✓ Strengthening Vocational education in schools through mainstreaming, career guidance and counselling, internships and coverage of out of school children.
- It also aims to **focus on initiatives of PM e-Vidya, Foundational Literacy and Numeracy Mission and National Curricular and Pedagogical Framework for Early Childhood Care and Education** as part of the Atmanirbhar Bharat Abhiyan.
- It will supply multi-year financing for India’s participation in Program for International Student Assessment (PISA) 2021.

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## Milk Products In The Indus Valley Civilization ?

### In The News

The year 2020 marks **100 years of discovery of IVC or also known as Harappan Civilization.**, and a new study has shown that dairy products were being produced by the Harappans as far back as 2500 BCE.

### Key findings

- **Earliest evidence of industrial level of dairy production:** These were based on analysis of the absorbed lipid residues in unglazed ceramic vessels.
- **Evidence of dairy processing:** that is, the preservation of milk through fermentation and other techniques.
  - o The results are based on molecular chemical analysis of residue of pottery found at **Kotada Bhadli, in Gujarat.**
  - o Even in the present day, Gujarat is still a major producer of dairy products in India.
- **Animal used for dairy production:** They studied the tooth enamel from fossils of cattle, water buffalo, goat and sheep found in the area. Cows and water buffalo were found to consume millets, while sheep and goats ate nearby grass and leaves.
  - o The large herd indicates that milk was produced in surplus so that it could be exchanged and there could have been some kind of trade between settlements.
- **Hence, these finding throws a light on rural economy of IVC.**

### What is the relevance of IVC in present times?

- **Town structure:** Towns were built on a grid pattern with main roads cutting lanes and alleys perpendicularly.
  - o This pattern is the most accepted in planned cities.
- **Segregation of public and private spheres:** Towns were roughly divided into two blocks- one for public activities- ritual, political and festivity, and the other for domestic houses.
  - o This is followed even now with office and public buildings separated but in

close proximity to residencies.

- **Soft diplomacy:** Harappan sites are found throughout a large area of over 1000 sq km, with artefacts also located in Afghanistan, Iran, Iraq, Oman, Qatar, Bahrain, Kuwait and the UAE. These connections can be used for soft diplomacy today.
- **Trade:** Most of the IVC sites had traded items. Indus valley people traded with the Mesopotamians and other people from far-away places and that helped diversify the living conditions. It also helped bring in gold and precious items. This shows that **trade is vital for economy** and for earning foreign exchange. It also highlights that trade has been an integral part of economic structure in society.
- **Drainage system:** Harappans built large cities with very intricate irrigation and sanitation systems using technology that can still be found in rural India today.
- **Weights and Measurements:** Standardized weights and measures and standard brick size, these are well- accepted for ease in transactions and building uniformity and have continued to be used from the Indus civilization.
- **Ornaments:** These were widely used by the people. They wore necklaces, armlets, rings etc. Earrings, girdles were also worn by women. Beads were quite popular as is evident from factories found in Chanhudaro and Lothal. People were conscious of fashion.
  - o In today's times as well people are conscious of fashion and different styles of jewellery, hairstyles, clothes etc are still in vogue.
- **Seals:** The standard Harappan seal was a square plaque 2 x 2 sq. inches usually made from the soft river stone steatite.
  - o It appears that the seals were also used as amulets, carried on the persons of their owners, **perhaps as modern day identity cards**
- **Religion:** The people in IVC were

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Page No. 2020

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polytheistic evidences of Pashupati seal is found. It has been widely suggested that the Harappans worshipped a mother goddess who symbolized fertility.

- o The worship of deities and nature is still found in the contemporary religions.

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Page 17 2020



## 350th Jayanti Of Baba Banda Sing Bahadur

### In The News

The Prime Minister recently paid tribute to Baba Banda Singh Bahadur Ji on his **350th Jayanti**.

### About Baba Banda Singh Bahadur (1670-1716)

- He was a **Sikh warrior known for his struggle against the Mughal Empire** in the early eighteenth century after meeting with Sri Guru Gobind Singh.
- He was also called Lachman Das, Lachman Dev, or Madho Das and was born in a Minhas Rajput family.
  - He **established a monastery at Nanded** (in present day Maharashtra), on the bank of river Godavari, where in **1708** he was visited by, **and became a disciple of, Guru Gobind Singh**, who gave him the new name of Banda Bahadur.

After the fortress town of **Gurdas Nangal** fell to the Mughals in **1715**, Baba Banda Singh was **captured and brought to Delhi** where he was tortured to death in **1716** in the reign of Mohammad Farrukhsiyar.

- **Contribution of Banda Bahadur**
  - He was known for **the abolition of the zamindari system**, and granting proprietary rights to the actual tillers of the land.
  - He **minted coins in the names of Guru Nanak Dev and Guru Gobind Singh** and issued orders under his seal.
  - The name of **Mukhlisgarh in Haryana was changed to Lohgarh (Fort of Steel)**, and it became the **capital of the first Sikh state**.

## Nobel Prize In Literature

### In The News

The **Nobel Prize in Literature 2020** was awarded to **Louise Glück** "for her unmistakable poetic voice that with austere beauty makes individual existence universal."

### About Louise Glück

- The Nobel Prize in Literature is given by Royal Swedish Academy **for a writer's entire body of work** and is regarded as perhaps the world's most prestigious literary award.
- **Glück is the first female poet** to win the prize since Polish writer Wisława Szymborska won in 1996.
- Born in New York City in 1943, Glück has written **12 collections of poetry and 2 books of essays**.
- She has also won the **Pulitzer Prize for Poetry in 1993** for her work 'The Wild Iris' written in **1992**.
- Her themes include **childhood, family life, trauma, death and healing**.

### About Nobel Prize

- Nobel Prizes, as designated in the will of Alfred Nobel, are in **physics, chemistry, physiology or medicine, literature and peace**.
- It is **not awarded posthumously** and is awarded to maximum of three person for single category.
- Alfred Nobel specifically designated the institutions responsible for the prizes he wished to be established:
  - The Royal Swedish Academy of Sciences for the Nobel Prize in Physics and Chemistry,
  - Karolinska Institute for the Nobel Prize in Physiology or Medicine,
  - The Royal Swedish Academy for the Nobel Prize in Literature
  - Committee of five persons to be elected by the Norwegian Parliament (Storting) for the Nobel Peace Prize.



## Role Of Women In Trade

### In The News

Recently, the World Bank Group and the World Trade Organization (WTO) jointly published a report titled “**Women and Trade: The Role of Trade in Promoting Women’s Equality**”.

### About the report

- This report marks the first major effort to **quantify how women are affected by trade** through the use of a new gender-disaggregated labor dataset.
- This analysis helps governments understand **how trade policies will affect women and men differently**.
- The gender perspective study of trade **could help in empowering women economically and making the world a better place for women**.
- **Gaining a better understanding** of how women are affected by trade will be essential as countries develop and the **global economy recovers from the pandemic**.

### What is the role of trade in promoting women’s equality?

- **Trade creates better jobs for women:** Countries that are more open to trade, as measured by the ratio of trade to gross domestic product, have higher levels of gender equality.
- **Changing nature of trade creates new opportunities for women:** New trends in global trade-especially the rise in services, global value chains, and the digital economy-are opening up important economic opportunities for women.
  - **Countries are becoming more integrated with global value chains (GVC)**, which tend to create jobs and increase wages for women.
  - **Digital technology and new online platforms create opportunities for women** to bypass traditional trade barriers (finance, access to information etc), expand their entrepreneurial skills and develop flexible careers that enable

them to manage both work and household responsibilities.

- **Less competitiveness:** Countries that do not allow women to fully participate in the economy are less competitive internationally.
- **Exporters employ more women:** In developing countries, women make up 33% of the workforce of exporting firms compared with just 24% of non-exporting firms.
- **Growth of services sectors:** More than two-thirds of women in developed countries were employed in the services sector in 2017, up from 45% in 1991.
  - In developing countries, the proportion of women in the service sector jumped to 38 percent from 25 percent over the same period.
- **Positive role of trade on Women:** Trade increases women’s wages and increases economic equality. It decreases social inequality, and expand women's access to skills and education.

### What are the constraints affecting women in their trade related roles?

- **Wage gap:** Despite many advances, women across the world hold fewer jobs, are paid less, and are more likely to experience worse job conditions than men.
- **Biased trade policy:** On its surface, trade policy is gender-neutral; no country imposes tariffs or nontariff measures by gender. But a closer look at the gender dimension of trade policies reveals important differences in how trade policies affect women and men.
  - Trade policy is inadvertently biased against women, resulting in lower levels of employment and higher prices for consumer goods.
  - Compared to men, women tend to spend a larger share of their income goods with high tariffs, such as food.
- **Women work mainly in low- to medium-skill occupations:** Women are increasingly

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moving from medium skill to high-skill jobs. Despite this increase, 80% of women globally still occupy medium- and low-skill jobs.

- **Women are more vulnerable to global shock to economy:** For instance, Women account for 60%- 80% of the workforce in the global value chain (GVC) for apparel which has been severely affected by the temporary closure of retail shops due to the COVID-19 pandemic.
  - o Similarly, in tourism and hospitality and related sectors women are specifically active.
- **Social, legal and financial barriers:** Women still face wide range of social, legal, financial barriers that prevent them from gaining from greater trade opportunities. These challenges are magnified by a lack of sex- disaggregated data.

## Way ahead

- **Enhance cross-border trade through trade facilitation and trade finance:** This can be a catalyst for women traders by creating predictable and efficient customs processes, reducing clearance times and trade costs, increasing the involvement of women in trade facilitation decision mechanisms etc.
- **Improving women's access to trade finance:** This can contribute to empowering women-owned and managed firms.
- **Lower tariff and nontariff barrier:** Female workers, particularly in developing economies, are affected by stubbornly high tariffs on agricultural goods, tariffs on textiles.
  - o In India products produced largely by women face on average 6% higher tariffs than products produced largely by men in export markets (2018).
  - o **Nontariff measures raise the compliance costs** associated with procedures, regulations, and standards, which can be particularly burdensome for small enterprises with little experience in trade—as is the case for many women-owned firms.

- **Increase women's capacity to engage in international trade:** Targeted policies can help women overcome the challenges; maximize the benefits of trade opening, including services trade, digital trade etc.
  - o Proper compensation policy could protect women from the heat of automation.
- **Collective efforts to promote trade and gender equality**
  - o International institutions can support trade and gender equality through the maintenance and **strengthening of open, rules-based, and transparent trade.**
  - o **Ongoing WTO negotiations and joint initiatives** related to services, agriculture, electronic commerce, and micro, small, and medium enterprises **could further empower women in the world economy.**
  - o In addition, impact evaluations of international assistance, **including Aid for Trade with a gender component**, can provide feedback on the kinds of interventions that are most effective in promoting gender equality in trade.
  - o Further analysis and technical assistance should continue to **take advantage of increasing access to sex-disaggregated data** to identify priority sectors, skills, and markets in which women have a comparative advantage.

## Modern Slavery

### In The News

According to a **report titled 'Stacked Odds'**, one in every 130 females globally is living in modern slavery.

### More in News

- Global estimates were **studied and reported by Walk Free and two UN agencies - the International Labour Organisation (ILO) and the International Organisation for Migration (IOM)**.
- Women and girls account for nearly three quarters (71 per cent) of all victims of modern slavery.
  - Females outnumber males as victims of modern slavery in four of the five world regions. They account for 73% of victims in the Asia and Pacific, 71% in Africa, 67% in Europe and Central Asia, and 63 % in the Americas
- The report highlighted that **99 percent of the victims of forced sexual exploitation are women**. Additionally, 84 percent of all victims of forced marriage and 58 percent of all victims of forced labour are also women.

### Modern Slavery

There is no universally accepted definition of “modern slavery” or “contemporary forms of slavery.”. Essentially, it refers to **situations of exploitation that a person cannot refuse or leave because of threats, violence, coercion, deception, or abuse of power**.

- Modern slavery takes many forms such as
  - **Human trafficking**
  - **Forced labour**
  - **Debt bondage/bonded labour**
  - **Descent-based slavery:** People are treated as property, and their “slave” status was passed down the parental line.
  - **Slavery of children** including child trafficking, child soldiers etc.
  - **Forced and early marriage. Factors for Modern slavery**
- **Absence of the Rule of Law:** Slavery thrives in the absence of a properly

functioning law enforcement system. It is often abetted by police and other authorities. Without adequate enforcement of existing laws and the strengthening of legal frameworks, human traffickers operate with impunity.

- **Poverty:** About 765 million people worldwide live in extreme poverty, making less than \$1.90 per day. Those in destitute conditions have limited means to support their families. In the absence of alternatives, many people, taking risks, are lured by sham offers of better futures.
- **Marginalized Groups:** Groups that face discrimination, including ethnic and religious minorities, women and children, and migrants and refugees, are vulnerable to enslavement.
- **War and Conflict:** Instability brought on by war or conflict can expose besieged communities to forced labor networks.
- **Natural Disasters:** Extreme weather, as well as resulting pandemics, can ravage a country’s physical infrastructure, displace communities, and increase the desperation of already marginalized groups.
- **State-imposed forced labour:** It includes citizens recruited by their state authorities to participate in agriculture or construction work for purposes of economic development, young military conscripts forced to perform work that is not of military nature, or prisoners forced to work against their will.

### Measures to be taken to eradicate modern slavery

- **Strengthen Criminal Justice:** Criminalise all forms of modern slavery, and ensure penalties are proportionate to the seriousness of the offence.
- **Ensure that no child is born stateless** by strengthening legal safeguards and ensuring birth registration.
- **Strengthening laws or policies** that prevent or make it difficult for workers to leave

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abusive employers without risk of loss of visa and deportation and/or forfeit of security deposits must be addressed.

- **Overturning laws and policies that strip women of their rights** or exacerbate their vulnerability to sexual violence and exploitation;
- **Improve Coordination and Accountability:** Improve coordination among national agencies by developing evidence-based national actions plans and establishing national referral mechanisms involving civil society, law enforcement agencies, and other groups
  - Improve cross-border collaboration and data-sharing to tackle modern slavery.
- **Support Survivors:** Improve support for modern slavery victims and survivors by providing regular, systematic training for all frontline service providers.

per cent of people in national parliaments in 2020 are female.

- **Normalisation of gender-based violence** also increases female vulnerability to modern slavery.

**Work with communities, civil society and faith leaders to create avenues for reporting crimes,** improve access to protection and support services, and change social norms around widow cleansing, witchcraft accusations and other harmful practices.

### Why are women and girls more at risk?

- Broader socio-economic disadvantages, from factors **including poverty, lack of political representation, and a lack of access to education.**
- In many countries, **laws can exacerbate, rather than protect from modern slavery.** They prevent women from inheriting land and assets, conferring citizenship on their children, traveling freely, and working without their husbands' permission.
- Within the **workforce, gender discrimination financially penalises women.**
  - Women are often paid far less than men for the same work and are less likely to be considered for leadership roles than men.
- Women are **underrepresented at all levels of political leadership:** on average, just 25

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## Older People In India

### In The News

Ministry of Health and Family Welfare **launched Decade of Healthy Ageing (2020-2030)** on International Day for Older Persons (1<sup>st</sup> October).

### More in News

- Decade of Healthy Ageing (2020-2030) is endorsed by World Health Assembly in August 2020.
- It is an opportunity to bring together governments, civil society, international agencies, professionals, academia, the media, and the private sector for ten years of **concerted, catalytic and collaborative action to improve the lives of older people, their families, and the communities in which they live.**
- In India, **Decade of Healthy Ageing will include evolving convergence within various national health programs and also promoting inter-sectoral coordination** with other line Departments/Ministries.

### Elderly Population - status in India

- According to **Population Census 2011 there are nearly 104 million elderly persons (aged 60 years or above) in India;** 53 million females and 51 million males.
  - o A report released by the United Nations Population Fund and HelpAge India suggests that the number of elderly persons is expected to grow to 173 million by 2026.
  - o **71% of elderly population resides in rural areas while 29 % is in urban areas.**
- The **old - age dependency ratio climbed from 10.9% in 1961 to 14.2% in 2011** for India as a whole. For females and males, the value of the ratio was 14.9 % and 13.6% in 2011.
  - o The **dependency ratio is an age-population ratio of those typically not in the labour force (the dependent part) and those typically in the labour force (the productive part).**

- o It is used to measure the pressure on productive population.

- **State - wise data on elderly population divulge that Kerala has maximum proportion of elderly people** in its population (12.6 per cent) followed by Goa (11.2 per cent) and Tamil Nadu (10.4 per cent) as per Population Census 2011.
- **The least proportion is in Dadra & Nagar Haveli (4.0 per cent) followed by Arunachal Pradesh (4.6 per cent) and Daman & Diu and Meghalaya (both 4.7 per cent).**

### Challenges Faced by elderly population

- **Social**
  - o **Ageist stereotypes:** Stereotyping (how we think), prejudice (how we feel) and discrimination (how we act) towards people on the basis of their age, ageism, affects people of all ages but has particularly deleterious effects on the health and well-being of older people.
  - ✓ This marginalizes older people within their communities, reduces their access to services, including health and social care, and limits appreciation and use of the human and social capital of older populations.
  - o **Changing Family Structure:** Traditional Indian society with an age-old joint family system has been instrumental in safeguarding the social and economic security of the elderly people. However, with the emerging prevalence of nuclear family set-ups in recent years, the elderly is likely to be exposed to emotional, physical and financial insecurity in the years to come.
  - o **Lack of Social Support:** Elderly in India are much more vulnerable because of the less government spending on social security system.
  - o **A rapidly changing world:** Globalization, technological

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Page No. 2020

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developments (e.g. in transport and communication), urbanization, migration and changing gender norms are influencing the lives of older people in direct and indirect ways.

## • Health

- **Medical Problem:** It is often claimed that senior citizens are accompanied by multiply illness and physical ailments. Besides physical illness, the senior citizens are more likely to be the victims of poor mental health.
- **Availability, Accessibility and Affordability of Health Care:** Despite their increased health risks, a large number of older persons lack access to adequate levels and quality of health care.
- **Financial bankruptcy:** The aged people are often financially bankrupted since their assets; properties and all their wealth are legally transferred to their children so most elderly people do not have the emergency fund available to meet their basic needs.
- **Psychological Problems:** The common psychological problems that most of the senior citizens experiences are: feeling of powerlessness, feeling of inferiority, depression, uselessness, isolation and reduced competence.

‘typical’ older person. Some 80-year-olds have physical and mental capacities similar to many 20-year-olds. Other people experience significant declines in physical and mental capacities at much younger ages.

**A comprehensive public health response must address this wide range of older people’s experiences and needs.**

- **Long Term Care:** Access to good-quality long-term care is essential to maintain functional ability, enjoy basic human rights and live with dignity. In addition, it is essential to support caregivers, so they can deliver proper care and also take care of their own health.
- **Introduce or enhance legislation** to promote equality and non-discrimination on the basis of age in the provision of health and health insurance services and in social protection policies and programming, and undertake measures to prevent multiple discrimination against older persons;
- **Global Measures:** Undertaking a Global Campaign to Combat Ageism; Enhancing the Global Network for Age- friendly Cities and Community
- **Research in Geriatrics and Gerontology** needs to be further encouraged.

## Way forward

To foster healthy ageing and improve the lives of older people and their families and communities, fundamental shifts will be required

- **Age Friendly Environment:** Removing physical and social barriers and implementing policies, systems, services, products and technologies to:
  - promote health and build and maintain physical and mental capacity throughout the life course; and
  - enable people, even when they lose capacity to continue to do the things they value.
- **Address diversity in older age:** There is no

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## Global Hunger Index 2020

### In The News

As per Global hunger Index (GHI) report 2020, India has ranked 94 out of 107 countries.

### Global findings of the report

- Nearly **690 million people are undernourished** out of which 144 million children suffer from stunting, 47 million children suffer from wasting and in 2018, 5.3 million children died before their 5<sup>th</sup> birthday as a result of undernutrition.
- **Worldwide hunger is at a moderate level** which translates to a score of 10-19.9 out of 100.
- **South Saharan Africa and South Asia have the highest hunger and undernutrition levels** among world regions, with 2020 GHI scores of 27.8 and 26.0, respectively—both considered serious.
  - 3 countries have alarming levels of hunger- Chad, Timor-Leste, and Madagascar.
- The world is **not on track to achieve the 2<sup>nd</sup> Sustainable Development Goal - Zero Hunger** - by 2030. At the current pace, approximately 37 countries will fail to even to reach low hunger by 2030.

### India's Hunger Dilemma

- Out of the total 107 countries, **only 13 countries fare worse than India** (Rwanda, Nigeria, Afghanistan etc.). Countries like Nepal, Pakistan, Bangladesh and Indonesia are ahead of India.
- GHI 2020 gave **score of 27.2 on a 100 point scale to India** which puts the country in the “serious” category of hunger.
- In terms of overall undernourishment, **14% of India's population does not get enough calories**.
  - Almost 35% of Indian children are stunted.
  - 17.3% of Indian children under five are wasted.
  - Under 5 mortality rate is at 3.7%.

- **Food insecurity, poor sanitation, inadequate housing, limited access to healthcare** — all result in maternal distress, that leads to the kind of slow, chronic wasting seen in Indian children.
- India has around **70 million tonnes of foodstock (excluding un-milled paddy)** in central pool stored at Food Corporation of India's warehouses. This is enough to ensure no one stays hungry.
- The **National Food Security Act, 2013** is in place to **ensure food security** for the most vulnerable communities.
  - **Ration distribution through fair price shops, mid-day meal programmes at schools, nutrition, maternity benefit programmes for children and pregnant mothers at anganwadis** all fall within the Act.

### Reasons for dilemma

- The **agriculture output from small and marginal holdings are either stagnant or declining** due to reasons such as reduced soil fertility, fragmented lands or fluctuating market price of farm produce.
- **Relative income of unorganised sector** has been on the decline. This has adverse effects on their capacity of people engaged in the sector to buy adequate food.
- **The public distribution system (PDS) in the country is not functioning well** or is not accessible to everyone.
- The **emaciated rural livelihoods sector and lack of income opportunities** other than farm sector has contributed heavily to the growing joblessness in rural areas. The Periodic Labour Force Survey (PLFS) 2017-18 revealed that rural unemployment stood at a concerning 6.1%.

### Way forward

- **More crops should be grown, especially by small and marginal farmers** with support from the Union government.
- The government may **create provisions to**

supply cooked nutritious food to the vulnerable section of the society.

- Jadavpur Jyotidevi Shramajeevi Canteen model of West Bengal can be replicated by other state governments and agencies.
- Rural employment schemes such as MGNREGA should be given a boost to increase employment and wages.
- Access to food grains under the PDS needs to be streamlined by simplifying technical processes and reducing Aadhaar-related glitches.
- Union government must also ensure that the ‘One Nation One Ration card’ scheme is operationalised through proper preparations such as proper grain allotments to shops, identification procedures and proper issuance of ration cards to individuals seeking food grain.

## Annual Status Of Education Report 2020

### In The News

Recently, fifteenth Annual Status of Education Report (ASER 2020 Wave 1) was released

### About ASER report

- ASER is an **annual survey that aims to provide reliable annual estimates of children's schooling status** and basic learning levels for each state and rural district in India.
  - Urban areas are not covered.
- **Schooling status is recorded for children in the age group 3 to 16**, and children in the age group 5 to 16 are tested for their ability to read simple text and do basic arithmetic.
- Except for 2015, **ASER has been conducted every year since 2005**.
- ASER is conducted by volunteers from local partner organizations in each district. **ASER is facilitated by Pratham.**

### ASER 2020 Findings

- **Children's enrolment:** As compared to data from ASER 2018, data from ASER 2020 (September 2020) show a small shift in enrolment from private to government schools, across all grades and among both girls and boys.
  - **Reasons:** financial distress in household and/or permanent school shutdown among private schools.
- **Children not currently enrolled:** It found that 5.3% of rural children aged 6-10 years had not yet enrolled in school this year, in comparison to just 1.8% in 2018. This proportion is particularly large in Karnataka (11.3% 6- and 7-year-olds not enrolled in 2020), Telangana (14%), and Rajasthan (14.9%).
  - **Reasons:** families are waiting for schools to open to seek admission.
- **Household Resources:** While schools are closed, children rely mainly on the resources available at home to help them learn. These resources can consist of people who can help them to study (for example, educated

parents); technology (TV, radio or smartphone); or materials (such as textbooks for the current grade).

- Children in lower grades get more family support than in higher ones. Similarly, children with more educated parents receive more family support than those with less educated parents.
- **Access to Learning Materials and Activities:** Governments and others have used a variety of mechanisms to share diverse learning materials with students during school closures. However, data shows large variation in access
  - A higher percentage of private school children received learning materials/activities as compared to government school children in the same grades.
    - ✓ WhatsApp was the most common medium through which activities and materials were received. However, this proportion was much higher among children in private schools (87.2%) than those in government schools (67.3%).
  - About 36% of rural households with school-going children had smartphones. By 2020, that figure had spiked to 62%.
    - ✓ About 11% of families bought a new phone after the lockdown, of which 80% were smartphones.
  - **There are significant variations by state in children's receipt of learning materials** or activities during the reference week. States where less than a quarter of all children had received any materials include Rajasthan (21.5%), Uttar Pradesh (21%), and Bihar (7.7%).

### Recommendations

Based on finding, ASER suggested certain policy measures

- When schools re-open, **it will be important to continue to monitor who goes back to school** as well as to understand whether there is learning loss as compared to

previous years

- **Effective ways of “hybrid” learning need to be developed**, that combine traditional teaching-learning with newer ways of “reaching-learning”.
- In order to **improve digital content and delivery for the future**, an in-depth assessment of what works, how well it works, who it reaches, and who it excludes is needed.
- **Parents’ increasing levels of education can be integrated** into planning for learning improvement

## Stem Career Opportunities For Women In India

### In The News

Recently, The Department of Science & Technology (DST) and IBM India announced two collaborations to promote STEM (Science, Technology, Engineering and Mathematics) learning among students.

### More about news

- The first collaboration involves **DST's 'Vigyan Jyoti' program**, the second collaboration is with **Vigyan Prasar** (an autonomous organisation of DST) that will build and run a technology-driven interactivity platform named **'Engage With Science'**.
- **Vigyan Jyoti** is a programme to promote STEM learning among girl students.
  - o It aims to **inspire them towards STEM careers** by creating a level-playing field for meritorious girls from grades 9 to 12 to pursue STEM in their higher education, especially from the top colleges in the areas where girls are hugely underrepresented.
  - o The partnership with IBM India will strengthen the current activities and **expand to include more schools in future.**
  - o **Women tech experts** working at IBM India will interact and **be role models for inspiring girl students** to plan for a career in STEM under the program.
- **Engage with Science of Vigyan Prasar** aims to build interest and create a community of practice with students, teachers, and scientists connecting the high school students to the higher education institutions.
  - o As part of the collaboration for 'Engage With Science' initiative, IBM will run the day-to-day activities of the program, including student workshops, seminars and **leverage its expertise to mentor the students.**

- According to the United Nations, India is a paradox when it comes to STEM opportunities for women. **Despite producing more women graduates (in STEM), as compared to global average, it employs fewer women researchers.**
  - o In STEM 40% of graduates are women in India as compared to 35% of the global average.
  - o Only 14% of researchers in India are women as compared to 30% of the global average.

### Why India has more women graduates in STEM yet fewer women researchers?

- **Patriarchal culture in STEM:** According to the UN, girls are often made to believe that they are not smart enough for STEM or that boys and men have natural affinity for the field. This creates a psychological barrier, for women, in pursuing research as career.
- **Issues in higher education:** A precipitous drop in the number of women in science happens at the stages following graduation. Building a motivated team and attracting consistent funding are the two main challenges that any young researcher faces. If the researcher is woman then this issue gets exacerbated.
- **Hurdles in attending research conferences:** Scientific ideas grow and take form through interactions. Conferences help in developing fresh, creative and contemporary projects. However, women face following issues in attending research conference:
  - o **Administrative hassles** at the workplace
  - o **Uncertainty of securing a travel fund**
  - o Caring for young children or ageing parents often
- **Repercussions of measures considered to be “women-friendly”:** In some institutes, to ensure their safety, women are advised to work only during official hours, while men can access labs any time. The outcome of

**What is the present scenario of STEM career opportunities for women in India?**

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Printed March 2020  
Page 17/2020

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this measure is contrary to the intention.

- **Gender pay gap:** Despite the ground breaking research and performance, women in the field of STEM are known to be paid less for their research work compared to men.

## Way ahead

- **Funding of crèche facility at workplace:** Making crèche facilities mandatory at workplaces employing a certain number of women were much needed. However, it would be **unaffordable for students and post-doctoral fellows if all the costs were to be borne by the users.** Therefore, these facilities **should be funded by the institutes** to ensure the crèche remain **sustainable, affordable for all and provided employment opportunities to more women.**
- **Safe travel:** Safe travel is particularly necessary for encouraging women to join research institutes located in suburban towns. **Prioritising young families for on-campus housing** by revamping the current seniority-based system and **workplace transport facility in cities** could aid the safety of women.
- **Revamped approach to conferences:** By **supporting and rewarding organisers who ensure greater participation of women,** we can ensure higher participation of women and present networking opportunities to them.
- **Policy reforms:** The **childcare leave should be extended to male parent also** to prevent women from bearing the brunt of career setbacks.

## Conclusion

Our future will be marked by scientific and technological progress, which can only be achieved when women and girls are creators, owners, and leaders of science, technology and innovation. **Bridging the gender gap in STEM is vital to achieving the Sustainable Development Goals** and for creating infrastructure, services and solutions that work for all people.



## Azad Hind Government

### In The News

**77th anniversary** of the formation of Azad Hind Government on 21st October, 2020.

### About Azad Hind Government:

Netaji Subhash Chandra Bose had announced the establishment of the provisional government of Azad Hind in occupied Singapore in 1943.

Known as **Arzi Hukumat-e-Azad Hind**, it was supported by the Axis powers of Imperial Japan, Nazi Germany, the Italian Social Republic, and their allies.

- The provisional government was also formed in the Japanese-occupied Andaman and Nicobar Islands. The islands were reoccupied by the British in 1945.

### Why was it set up?

Bose was convinced that **armed struggle was the only way to achieve independence for India.**

- It drew ex- prisoners and thousands of civilian volunteers from the Indian expatriate population in Malaya (present-day Malaysia) and Burma (now Myanmar).

### Key features:

- The Azad Hind government had its own court, civil code and currency.
- Its provisional capital was Port Blair, while its capital-in-exile was Rangoon and Singapore.

### Under the provisional government:

- **Bose** was the head of the state, the prime minister and the minister for war and foreign affairs.
- **Captain Lakshmi** headed the women's organisation.
- **S A Ayer** headed the publicity and propaganda wing.
- **Rash Behari Bose** was designated as the supreme advisor.

## Why floods occur in Hyderabad?

### In The News

Hyderabad was recently listed as **the rainiest place in the country** by Skymet, an independent weather forecasting agency, on Sunday after it recorded 72.5mm of rainfall.

- The city has witnessed its third wettest day of October in the last 10 years- As per India Meteorological Department (IMD) data, Hyderabad witnessed 98.3mm rainfall on October 10, 2013 and 82.6mm on October 3, 2017.

### Rainfall this month:

The IMD data indicates that the city has been pounded with 356mm of rains in 18 days, which is four times higher than the normal rains.

### What caused this havoc?

This was caused by a weather that formed in the Bay of Bengal, hit the east coast and moved westward, weakening on the way.

- Normally, cyclones lose steam upon making their landfall. This particular system, however, clocked a long east-west track cutting across Andhra Pradesh, Telangana, north-interior Karnataka and Maharashtra.
- All these states experienced above-normal rain during the recent monsoon season. **As a result, the soil in these regions has retained significant moisture content.**
- In addition, **vertical wind shear** — the result of a significant difference in wind speed between higher and lower atmospheric levels — helped the system maintain its intensity as a deep depression or a well-marked low pressure area even on land.

### But, why floods occur in Hyderabad?

Hyderabad is a system of catchments.

1. The western edge is in the Godavari river basin.
2. To the east, it's in the Krishna River basin.
3. Also, Hyderabad is in the Deccan region,

which has a chaotic drainage pattern — water here does not flow in a single direction as the slope is in multiple directions.

**What efforts were made in the past to control floods?** In 1908, devastation caused by a cloud burst and the flooding claimed 15,000 lives and rendered 80,000 homeless.

**Sir Visvesvaraya** was commissioned to conduct a study and suggest measures to manage the impact of floods on the city. Following this:

1. Two reservoirs — Osmansagar and Himayatsagar — came up.
2. A modern system of drainage was also built.

### What has not been addressed?

- The city has been built on top of the agrarian imprint. Sensitive catchment areas have been illegally occupied.
- Roads have been built, which are rigid boundaries, around the ‘fluid’ water bodies, without any buffer areas.
- Unchecked real estate growth.

### What needs to be done now?

1. Take stock of the entire drainage system, not just the nalas.
2. See the whole city as a catchment area and begin to clear critical areas of encroachments.
3. For all this to be implemented, we need an executive and ‘ecological’ body like a “Lakes and Parks Authority”, can draw upon and coordinate the relevant parts of the functions at Hyderabad Metropolitan Development Authority (HMDA), Greater Hyderabad Municipal Corporation (GHMC) and departments like revenue, irrigation, roads and buildings.
4. Risk mapping of the areas of the city should be done to assess the vulnerability, related to urban floods,

using GIS technology.

5. Town Planning department of GHMC should regularly monitor the prohibited areas to prevent encroachments.
6. Conserve and protect areas for groundwater recharge.

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Page No. 2020  
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Page PT 2020

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## Imposition of Article 356

### In The News

West Bengal governor Jagdeep Dhankhar recently made serious allegations about **the law and order situation in the state.**

- The remarks prompted speculation about imposition of **Article 356** in the State where Assembly polls are scheduled next year.

### Challenges highlighted:

1. The political killings, targeted killings and violence are a cause of great concern.
2. The greater challenge to democracy in the state is that the police and administration, those in the premier services, the IAS and IPS, are politicised.
3. Some of them are working as full-time political workers, as political foot soldiers, totally abandoning their roles.

### What is President's Rule in the Indian context?

**Article 356 of the Constitution of India** gives President of India the power to suspend state government and impose President's rule of any state in the country “if he is satisfied that a situation has arisen in which the government of the state cannot be carried on in accordance with the provisions of the Constitution”.

It is also known as ‘State Emergency’ or ‘Constitutional Emergency’.

### Implications:

Upon the imposition of this rule, **there would be no Council of Ministers.**

- The state will fall under the direct control of the Union government, and **the Governor will continue to head the proceedings, representing the President of India.**

### Parliamentary Approval and Duration:

- A proclamation imposing President's Rule **must be approved by both the Houses of Parliament within two months** from the date of its issue.
- The approval takes place through **simple majority in either House**, that is, a

majority of the members of the House present and voting.

- **Initially valid for six months**, the President's Rule can be extended for a **maximum period of three years with the approval of the Parliament, every six months.**

### Report of the Governor:

Under Article 356, President's Rule is imposed if the President, **upon receipt of the report from the Governor of the State or otherwise, is satisfied that a situation has arisen in which the government of the State cannot be carried on in accordance with the provisions of the Constitution.**

### Revocation:

- A proclamation of President's Rule may be **revoked by the President at any time by a subsequent proclamation.**
- Such a proclamation **does not require parliamentary approval.**

## Contempt of Court

### What is Contempt?

While the basic idea of a contempt law is to punish those who do not respect the orders of the courts, in the Indian context, contempt is also used to punish speech that lowers the dignity of the court and interferes with the administration of justice.

### Contempt of court can be of two kinds:

1. **Civil**, that is the willful disobedience of a court order or judgment or willful breach of an undertaking given to a court.
2. **Criminal**, that is written or spoken words or any act that scandalises the court or lowers its authority or prejudices or interferes with the due course of a judicial proceeding or interferes/obstructs the administration of justice.

### Relevant provisions:

- **Article 129 and 215 of the Constitution** of India empowers the Supreme Court and High Court respectively to punish people for their respective contempt.
- **Section 10 of The Contempt of Courts Act of 1971** defines the power of the High Court to punish contempts of its subordinate courts.
- The Constitution also includes contempt of court as **a reasonable restriction to the freedom of speech and expression under Article 19**, along with elements like public order and defamation.



## Elections During Covid

### In The News

Several countries, including India, have successfully conducted polls during COVID-19 with safety measures in place.

### COVID-19 and elections

- One of the cascading effects of the COVID-19 pandemic has been its impact on conducting elections. Some countries have pushed ahead with elections.
- Elections during COVID-19 presents certain challenges. However, postponing elections may not be the appropriate option as it has following risks:
  - o **Political risks:** disturbing the level playing field and undermining the incumbent or opposition;
  - o **Reputational risks,** for an organization that makes decisions, for trust in democratic processes and institutions
  - o **Financial risks:** budgetary implications, e.g. money invested that cannot be recovered;
  - o **Operational risks:** alternative dates are not feasible because of other risks, e.g. extension of term, other events;
  - o **Legal risks:** the decision can be legally challenged.
- **Challenges faced in elections during COVID-19:**
  - o **Campaigning:** large rallies can spread the virus. Virtual campaigning through social and print media and radio will have to suffice. This will raise the cost of campaigning, exclude the poor and indigent, further favoring those with access to finance and technology.
  - o **Polling stations:** These will be impacted as it becomes increasingly more difficult to find workers to man them and also need to provide protective gear and sanitizer at such a large scale.
  - o **Preparedness of electoral management bodies (EMBs):** preparing for elections will be infinitely more difficult where movement and contact is constrained. Most EMBs will

face increased administrative and logistical work necessary to hold elections during COVID-19.

- o **Effect on turnout:** Elections are characterised by high turnout and equal levels of participation across different groups in a society. Holding an election during a pandemic could undermine this aspect by reducing turnout.
- o **Impediments on Transparency:** Conventionally, elections are monitored by domestic and international observer groups to ensure the processes are lawful and meet the requirements for an election conducted with integrity. For COVID-19 elections, the situation could be different.

### Measures for conducting elections during COVID-19

- **Political consensus in sustaining decisions** made on the electoral calendar and procedures to avoid political friction and not undermining the legitimacy of the electoral result.
- **Special Voting Arrangements** and enabling various modalities to cast the vote. Voters should be offered voting methods that minimise direct contact with other people and reduce crowd size at polling stations.
- **Adopt measures that reduce the risks of contagion,** which range from the availability of masks and other protective materials, to the opening of more voting centers and the extension of the voting period.
- **Voter education** should reach all genders. It is important to understand how women access information during the pandemic and target voter education to ensure they have equal access to that information.

## Data Governance Quality Index

### In The News

Department of Fertilizers under the Ministry of Chemicals and Fertilizers has been ranked 2nd amongst the 16 Economic Ministries / Departments and 3rd out of the 65 Ministries / Departments on **Data Governance Quality Index (DGQI)**.

### About DGQI

- DGQI survey **assesses different Ministries / Departments' performance** on the implementation of Central Sector Schemes (CS) and Centrally Sponsored Schemes (CSS).
- It is conducted by **Development Monitoring and Evaluation Office (DMEO) under NITI Aayog**.
- Its objective is to **assess data preparedness of Ministries / Departments** on a standardized framework to drive healthy competition among them and promote cooperative peer learning from best practices.
  - It will **immensely help improve the implementation framework of government policies**, schemes and programmes to achieve the desired goals.
- **Major themes of DGQI include** Data Generation; Data Quality; Use of Technology; Data Analysis, Use and Dissemination; Data Security and HR Capacity & Case Studies.

### What is the role of data in governance?

- **For digital economy growth:** Affordable access to the internet and an encouraging regulatory system has made India the country with the second-largest internet users in the world and has powered its digital economy.
- **Better decision making:** The rapid technological advances have led to large volumes of data being generated by various activities, thus, increasing the dependence of business on data-decision making.

- **Political accountability:** Open government data can create political accountability, generate economic value, and improve the quality of federal initiatives. The possible benefits of Big Data analytics in government could range from transforming government programmes and empowering citizens to improving transparency and enabling the participation of all stakeholders.
- **Citizen empowerment:** Since the launch of the Digital India Program, the country has witnessed tremendous growth in digital infrastructure and initiatives in innovating e-governance policies that can lead to digital empowerment of citizens.
- **Prevents leakage:** Real time monitoring of Direct Benefit Transfer could reduce any potential leakage. It would also lead to need based improvisation in the governance without any lag.
- **Efficient administration:** Actively engaging policy makers and researchers with the processed data is crucial for making targeted and tailored programmes could improve the efficiency of programmes.

### Challenges

- **Collection of data:** Collection of data is a paramount task for government as data is received from multiple online and offline channels. Sharing data between departments and across ministries is a challenge, given the jurisdictional boundaries that exist.
  - Moreover, there has been a lack of consistent dialogue and coordination between key stakeholders.
- **Political will for utilizing data in governance:** Data driven policies would be more realist and may target long term benefits. This may go against popular will. Hence, strong political will is required to implement such policies.
- **Privacy concerns:** While privacy of data is important for businesses and government, public trust in government is particularly important. Hence, any breach of

confidentiality regarding data that is collected and processed by the government could have serious ramifications.

- According to The Internet Crime Report for 2019, India stands third in the world among top 20 countries that are victims of internet crimes.
- **Funding & Innovations:** While access to personal data has skyrocketed, funding targeted towards cross- disciplinary research on data governance has remained limited. This has led to a dearth of original research that policymakers can draw upon when trying to make sound policy decisions on data governance in India.

## Conclusion

Quality data, if analysed at the right time, can be critical for programmatic decision-making, efficient delivery of schemes, and proactive policy revision. Big Data can have a big impact only if used on a massive scale (with safeguards) by governments for the delivery of public goods and services.

## Way ahead

- **Open Data Policy:** Holistic decisions could be made if various government organizations share the pieces of data in their possession. Sharing and monitoring the collected data can help to make a democratic and cost effective governance process
- **Capacity building:** Technological companies and start-ups, which can offer solutions in data analytics by managing massive, complex data, need to be encouraged.
- **Funding the innovations and research:** A structured mechanism should be established for financial contribution of industries in the research field. Also government should put funding of research in priority list.
- **Legislative reforms:** Data collected by various entities is processed and disseminated in various forms. During this process, it should be ensured that the information is not distorted; not disclosed; not appropriated; not stolen; and not intruded upon within specified rules and guidelines.
  - **The proposed “Data Protection bill” and the report by Kris Gopalakrishnan committee** may prove a milestone in this direction.
  - Also, data protection and privacy regulations and guidelines, as exemplified by the EU’s General Data Protection Regulation, is prerequisite.

## Integrity Pact

### In The News

Recently, the Central Vigilance Commission (CVC) has amended the Standard Operating Procedure (SOP) on adoption of “Integrity Pact” in government organisations for procurement activities and restricted the maximum tenure of Integrity External Monitors (IEMs) to three years in an organisation.

### More about news

- Integrity Pact envisages a **panel of Independent External Monitors (IEMs)** approved for the organization.
- IEM reviews independently and objectively, whether and to what extent parties have complied with their obligations under the Pact.

### Integrity pact

- It is a **vigilance tool** that envisages an agreement between the prospective vendors/bidders and the buyer, committing both the parties not to exercise any corrupt influence on any aspect of the contract.
- Its **implementation is assured by Independent External Monitors (IEM)** who are people of unimpeachable integrity.
- The IP sets out **rights and obligations** of the parties involved in public contracts as well as that of IEM.
- Thus, **IP is both a legal document and a process**. It is also adaptable to many legal settings.
- IP was **developed by Transparency International in 1990s**.
- **IP has three players**
  - o **The Principal or the Company:** The Principal gives an undertaking by the Principal that its officials will not demand or accept any bribes, kickbacks, gifts, facilitation payment etc.
  - o **The Vendor/bidder:** The bidder gives an undertaking that it has not paid, and will neither offer nor pay any bribe, kickbacks facilitation payments, gifts etc. in order to obtain or retain the

contract.

- o **The Independent External Monitor (IEM):** IEMs play a role only if the obligations in the IP are not fulfilled by the Principal and/or bidders/vendors.

### Advantages of IP

- **Faster processing of contracts**
- **Improvement in the image and general perception** of the company
- **Reduced lawsuits**
- **Smoothens the procurement process, avoids litigation and arbitration** and in addition the corporation which uses the Integrity Pact **improves its profitability by 8%-10%**

### Problems in implementation of IP

- **At times, tremendous duplication:** An aggrieved party complains to the CVC and simultaneously takes it to the court also. CVC wants the IEM to investigate the matter and, at the same time, also suggests that someone from the Corporation conduct a technical examination. Thus, the same issue is debated in three different fora. **This leads to a lot of wastage of time, energy and resources.**
- **Difficulty in getting overseas suppliers to accept IP:** Foreign companies have doubts about IP and questions about its adoption. Hence, negotiations with them take time.
- **Double-edged sword:** If IP is not signed, then the head of the company has to face questions from the company. On the other hand, if the foreign company does not sign it, then the company loses its vendor.
- **Disincentive for the government companies:** It is an undue advantage to private companies. IP makes the government company open to complete disclosure while a private company is not accountable to anyone.
- **Concern regarding commercial confidentiality:** PSUs feel that too much disclosure could make them lose their edge in the bidding process whereas vendors are



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of the opinion that PSUs do not disclose all the information required, as per provisions of the Right to Information (RTI) Act.

- **The IEMs are new to IP and do not have any experience how best to start their functions Way ahead**
- **Avoid duplication in grievance redressal:** When an aggrieved party that seeks redressal in one fora, other authorities should refrain from attending the same matter. Taking the case to IEM is better than going to court where it is a lengthy and costly affair. IEM's process is a quick process giving the aggrieved the same opportunity that they seek in court.
- **Recalibrating the role of IEM:** Despite IP being in place since 2007 many scams took place after 2008. This necessitates the need to relook and strengthen the role of IEM.
  - **IEMs need to adopt a proactive strategy** instead of waiting till a complaint has been received.
  - **The government and civil society should manage IEMs effective selection process.**
  - IEMs should mutually **share their experiences about cases, circumstances etc.**
  - Many a times, the IEMs are located in different cities. To avoid delay, PSU's should go for **teleconferencing**.
  - IEMs should not only be **monitoring the tenders and bids**, but also **monitor the execution of the works**.
  - **There should be a procedure for removal of IEMs** lacking ethical competence.
  - **Time limit for addressing the grievances:** The complaints filed with the CVC should be addressed within 3 months
  - **Universalisation of the IP:** All public and private enterprises should adopt IP. This would ensure a level- playing field to check unfair advantage to private companies.
  - **Develop Ethical Competence:** Need to educate the people about values and morals.

India is considered to be one of the most corrupt countries in the world. India has been ranked at the **80th position among 180 countries and territories in the Corruption Perception Index (CPI), 2020**. A revitalized Integrity Pact could prove **milestone in ensuring people do not lose their rights due to corruption** that appears to be institutionalised in almost every organization in India.

### Conclusion

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## National Program And Project Management Policy Framework

### In The News

Recently, NITI Aayog and Quality Council of India (QCI) launched National Program and Project Management Policy Framework (NPMPPF).

- It will provide coherent execution approach that forms a **crucial link between the portfolios of projects and their component strategic disciplines** to ensure smooth execution of the projects.

### About NPMPPF

- **It provides an action plan to:**
  - Adopt a **program and project management approach** to infra development.
  - Institutionalize and promote the profession of program and project management and **build a workforce of such professionals.**
  - **Enhance institutional capacity and capability** of professionals
- It envisages **radical reforms** in the way infrastructure projects are executed in India.
- It will help in developing **good quality infrastructure, robust governance and reducing costs and waste material**, without compromising on the environment and ecology.

### Why needed?

- **Poor project management costs the Government:** Crowds out funding for more deserving projects, creates a culture of acceptance of delays and avoidable costs, economic burden due to delayed return in investments.
- **Effective response to changing project requirements:** It will bring in synergies, integration and a common language to complex program initiatives like Sagarmala, Bharatmala, Smart Cities Mission etc.
  - It is estimated that approx. 304 lakh crore of investment is required in Indian infrastructure sector till 2040.
- **To minimize time and cost overrun** due to some key challenges faced during project delivery including uncertainties in the land acquisition process and regulatory approvals, lack of comprehensive upfront planning and risk management etc.



## Foreign Contribution (Regulation) Amendment Act, 2020

### In The News

The Foreign Contribution (Regulation) Amendment Bill, 2020 was passed by parliament.

### Historical Background

- Earlier, Central Bureau of Investigation in its report submitted before the Supreme Court has said **less than 10% of the 29-lakh registered NGOs across the country file their annual income** and expenditure.
- Also, according to report by Intelligence Bureau (IB) **foreign-aided NGOs are actively stalling development projects** and impacting GDP growth by 2-3% per annum.
- In this backdrop, the amendments were introduced to FCRA,
  - To **regulate non-governmental organisations** and make them more accountable and transparent.
  - To **regulate religious conversions**, which are supported by foreign funds.
  - To ensure **foreign money is not used against national interests** or for anti-national activities.
- The bill amends the **Foreign Contribution (Regulation) Act, 2010 (FCRA)**. The Act regulates the acceptance and utilisation of foreign contribution by individuals, associations and companies. Foreign contribution is the donation or transfer of any currency, security or article (of beyond a specified value) by a foreign source.

### Provisions of the Amendment

- **Prohibition to accept foreign contribution:** Under the Act election candidates, editor or publisher of a newspaper, judges, government servants, members of any legislature are prohibited to accept any foreign contribution.
  - The **Amendment adds public servants** to this list. Public servant includes any person who is in service or pay of the government, or remunerated by the government for the performance of any public duty.

- **Transfer of foreign contribution:** Under the Act, foreign contribution cannot be transferred to any other person unless such person is also registered to accept foreign contribution.

- The Amendment **prohibits the transfer of foreign contribution to any other person.**

- **Aadhaar, passport and OCI card for registration:** Amendment adds that any person seeking prior permission, registration must **provide the Aadhaar number of all its office bearers**, directors etc. In case of a foreigner, they must provide a copy of the passport or the Overseas Citizen of India card for identification.

- **FCRA account:** Amendment states that foreign contribution must be received only in an account designated by the bank as ‘FCRA account’ in such branch of the State Bank of India, New Delhi, as notified by the central government.

- No funds other than the foreign contribution should be received or deposited in this account.

- The person may open another FCRA account in any scheduled bank of their choice for keeping or utilising the received contribution.

- **Restriction in utilisation of foreign contribution:** Under the Act, if a person accepting foreign contribution is found guilty of violating any provisions of the Act, the unutilised foreign contribution may be utilised, only with the prior approval of the central government.

- The Amendment adds that the government may **also restrict usage of unutilised foreign contribution** for such persons based on a summary inquiry, and pending any further inquiry.

- **Renewal of license:** Under the Act, every person who has been given a certificate of registration must renew the certificate within six months of expiration.

- Amendment adds that, the **government**

may conduct an inquiry before renewing the certificate to ensure that the person has fulfilled all conditions specified in Act.

- **Reduction in use of foreign contribution for administrative purposes:** Under the Act, a person who receives foreign contribution must use it only for the purpose for which the contribution is received. Further, they must not use more than 50% of the contribution for meeting administrative expenses.
  - Amendment reduces this limit to 20%.
- **Suspension of registration:** Under the Act, the government may suspend the registration of a person for a period not exceeding 180 days.
  - Amendment adds that such suspension may be extended up to an additional 180 days.

## Concerns about the amendments in FCRA

- **Lacks fund accessibility:** Many NGO's will not be able to access foreign funds because the scheme under which they receive these funds from donor agencies and larger NGOs, known as 'regranting' has been banned.
- **Restriction to explore:** The amount NGOs can spend on administration has been cut from 50% to 20%, mean many smaller NGOs will not be able to employ enough staff, hire experts and implement strategies they require to grow.

## New Rules For Postal Ballot

### Context:

EC announces new rules for postal ballot.

- The rules aim to make it more convenient for those above 80 years of age and people with disabilities to vote.

3. Registration of Political parties,
4. Conduct of Elections,
5. Election Disputes,
6. Corrupt practices & Electoral offences, &
7. By-elections.

### New rules announced:

- The returning officer would deploy polling teams, which will deliver and collect the postal ballot on pre- informed dates and then deposit it with the returning officer.
- The form required to opt for the postal ballot would be delivered at the residence of all those aged above 80 and people with disabilities by the booth level officer under his polling station.

### What is postal voting?

A restricted set of voters can exercise postal voting. Through this facility, a voter can cast her vote remotely by recording her preference on the ballot paper and sending it back to the election officer before counting.

### Who else can avail this facility?

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.

The exception to the above-mentioned category of voters is provided under **Section 60 of the Representation of the People Act, 1951.**

### Representation of the People Act, 1951:

This act provides for the actual conduct of elections in India. It deals with the following matters:

1. Details like Qualification and Disqualification of members of both the Houses of Parliament and the State Legislatures,
2. Administrative machinery for conducting elections,

## River Boards

### In The News

The Centre recently said that it will determine the jurisdictions of **the Krishna and Godavari river management boards (KRMB and GRMB)**.

- It was announced during **the meeting of the apex council** involving the Centre, Andhra Pradesh and Telangana.

The meeting was held primarily to **resolve the conflict between the two States** over executing irrigation projects and sharing water from the Krishna and Godavari rivers.

### About:

The apex council has been constituted by the Central Government under the provisions of **Andhra Pradesh Reorganisation Act (APRA), 2014**.

- It supervises the functioning of the Godavari River Management Board and Krishna River Management Board.
- It comprises the Union Jal Shakti Minister and the Chief Ministers of Telangana and Andhra Pradesh.

### Outcomes of the meeting:

- The two states would submit Detailed Project Reports (DPR) of new irrigation projects for appraisal and sanction by the apex council.
- The apex council would work towards establishing a mechanism to determine the share of Andhra Pradesh and Telangana in the Krishna and Godavari waters. The centre is expected to refer water sharing issues to the Krishna Godavari tribunal.
- The headquarters of the KRMB would be located in Andhra Pradesh.
- Telangana Chief Minister agreed to withdraw the case filed in Supreme Court, to allow the Centre to refer water sharing issues to the Krishna Godavari tribunal.

### Basics:

#### Inter-State River Water Disputes:

**Article 262** of the Constitution provides for the

adjudication of inter-state water disputes.

- Under this, Parliament may by law provide for the adjudication of any dispute or complaint with respect to the use, distribution and control of waters of any inter-state river and river valley.
- Parliament may also provide that neither the Supreme Court nor any other court is to exercise jurisdiction in respect of any such dispute or complaint.

The Parliament has enacted the two laws:

1. The River Boards Act (1956).
2. The Inter-State Water Disputes Act (1956).

#### 1. The River Boards Act:

It provides for the establishment of river boards by the Central government for the regulation and development of inter-state river and river valleys. A River Board is established on the request of state governments concerned to advise them.

#### 2. The Inter-State Water Disputes Act:

It empowers the Central government to set up an ad hoc tribunal for the adjudication of a dispute between two or more states in relation to the waters of an inter-state river or river valley.

- The decision of the tribunal is final and binding on the parties to the dispute.
- Neither the Supreme Court nor any other court is to have jurisdiction in respect of any water dispute which may be referred to such a tribunal under this Act.

## Central Vigilance Commission

### Context:

CVC has decided to receive through email, from November 1 onwards, all vigilance clearance proposals for the Board level, all-India and Central services officials for appointment, empanelment, promotion and other related issues. No hard copies of documents will be accepted.

### About CVC:

It is the apex vigilance institution **created via executive resolution** (based on the recommendations of **Santhanam committee**) in **1964** but was **conferred with statutory status in 2003**.

- It **submits its report to the President of India**.
- The CVC is **not controlled by any Ministry/Department**. It is an independent body which is only responsible to the Parliament.

### Composition:

Consists of central vigilance commissioner along with 2 vigilance commissioners.

### Appointment:

They are appointed by the President of India on the recommendations of a committee consisting of Prime Minister, Union Home Minister and Leader of the Opposition in Lok Sabha (if there is no LoP then the leader of the single largest Opposition party in the Lok Sabha).

### Term:

Their term is 4 years or 65 years, whichever is earlier.

### Removal:

The Central Vigilance Commissioner or any Vigilance Commissioner **can be removed from his office only by order of the President on the ground of proved misbehavior or incapacity** after the Supreme Court, on a reference made to it by the President, has, on inquiry, reported that the Central Vigilance Commissioner or any Vigilance Commissioner, as the case may be, ought to be removed.



## Outsiders Can Buy Land In J&K

### In The News

The Centre has notified new **land laws for the Jammu and Kashmir UT region**, ending the exclusive rights enjoyed by the local population over land under the now-diluted Article 370.

### Implications:

People, including investors, outside Jammu and Kashmir can now purchase land in the Union Territory.

### Who introduced the changes?

The introduction of the **UT of J&K Reorganisation (Adaptation of Central Laws) Third Order, 2020**, by the Ministry of Home Affairs has resulted in the repeal of at least 11 land laws in vogue in J&K earlier, including the J&K Big Landed Estates Abolition Act that had resulted in the famous ‘**land to tiller**’ rights.

### latest changes?

- Under the newly introduced **J&K Development Act**, the term “being permanent resident of the State” as a criteria has been “omitted”, paving the way for investors outside J&K to invest in the UT.
- **No land used for agriculture purposes shall be used for any non-agricultural purposes** except with the permission of the district collector.
- The **government may now allow transfer of land** “in favour of a person or an institution for the purpose of promotion of healthcare or senior secondary or higher or specialized education in J&K”.
- Also, **No sale, gift, exchange, or mortgage of the land shall be valid in favour of a person who is not an agriculturist.**
- **An Army officer not below the rank of Corps Commander** can declare an area as “**Strategic Area**” within a local area, only for direct operational and training requirements of the armed forces.

### Need for:

The Centre has been arguing that Article 370 hampered development in the U.T. as **investors were unable to purchase land prior to August 5, 2019.**

## SVAMITVA scheme

### In The News

Prime Minister Narendra Modi recently launched the physical distribution of property cards under the scheme.

- This launch will enable nearly one lakh property holders to download their property cards through SMS on their mobile phones and pave the way for villagers to use property as a financial asset for taking loans and other financial benefits.

### About SVAMITVA scheme:

- Launched by PM Modi in April this year with the aim to update rural land records, providing record of rights to village households and issue property cards.
- It is a central scheme of the Ministry of Panchayati Raj and Rural Development.
- The scheme focuses on mapping rural-inhabited lands using drones as land records are inaccurate or do not exist for vast areas across India.

### Property cards:

Property card for every property in the village will be prepared by states using accurate measurements delivered by drone-mapping. These cards will be given to property owners and will be recognised by the land revenue records department.

## What is a narco test

### In The News

Uttar Pradesh government is planning to subject the Hathras rape and murder victim's family members to narco tests.

### What are the concerns?

The consequences of such tests on “individuals from weaker sections of society who are unaware of their fundamental rights and unable to afford legal advice” can be devastating.

- It may involve future abuse, harassment and surveillance, even leakage of the video material to the Press for a “trial by media.”
- Such tests are an affront to human dignity and liberty, and have long-lasting effects.

### What are narco test?

Narco test involves the injection of a drug, sodium pentothal, which induces a hypnotic or sedated state in which the subject's imagination is neutralised, and they are expected to divulge true information.

- The drug, referred to as “**truth serum**” in this context, was used in larger doses as anaesthesia during surgery, and is said to have been used during World War II for intelligence operations.

### How is it different from Polygraph test?

A polygraph test is based on the assumption that physiological responses that are triggered when a person is lying are different from what they would be otherwise.

- Instruments like cardio-cuffs or sensitive electrodes are attached to the person, and variables such as blood pressure, pulse, respiration, change in sweat gland activity, blood flow, etc., are measured as questions are put to them.
- A numerical value is assigned to each response to conclude whether the person is telling the truth, is deceiving, or is uncertain.

### Are Indian investigators allowed to put suspects through these tests?

In **Selvi & Ors vs State of Karnataka & Anr (2010)**, a Supreme Court ruled that no lie detector tests should be administered “except on the basis of consent of the accused”.

- It also said the ‘**Guidelines for the Administration of Polygraph Test on an Accused**’ published by the National Human Rights Commission in 2000, must be strictly followed.

The court took into consideration international norms on human rights, the right to a fair trial, and the right against self-incrimination under **Article 20(3) of the Constitution**.

## Thailand's Protests

### Context:

Anti-government protests have escalated in Thailand in the last three months.

### What are the demands of protesters?

1. Removal of present Prime Minister Prayuth Chan-ocha.
2. A new constitution.
3. An end to the harassment of activists.
4. Demands to reform the monarchy

**What's the problem with the present system?** It all started in 2017 when King's constitutional powers were increased.

1. Pro-democracy activists say Thailand is backtracking on **the constitutional monarchy established when absolute royal rule ended in 1932**. They say **the monarchy is too close to the army** and argue that this has undermined democracy.
2. Protesters also seek **the scrapping of lese majeste laws against insulting the king**.
3. They want **the king to relinquish the personal control he took over a palace fortune** estimated in the tens of billions of dollars, and some units of the army.

### What do the Lese majeste laws mean?

The monarchy is protected by Section 112 of the Penal Code, which says whoever defames, insults or threatens the king, queen, heir-apparent or regent shall be jailed for three to 15 years.

### Challenges ahead:

Some conservatives are against reforming the monarchy. They say, monarchy is an institution the constitution says is “enthroned in a position of revered worship”.



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Page No. 2020  
Page FT 2020

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## India-Bangladesh and per capita GDP

### In The News

This comparison is based on the **International Monetary Fund's** latest update on the **World Economic Outlook**.

### Key findings:

- In 2020, growth of India's gross domestic product (GDP) will witness a contraction of over 10%.
- On average, India's per capita GDP has been 24 per cent higher than Bangladesh's during the last five years.
- But, in 2020, **the per capita income of an average Bangladeshi citizen would be more than the per capita income of an average Indian citizen** (This happened once in 1991 too). India's per capita GDP, in nominal US dollar terms, is projected to be \$1,876.53 in 2020, lower than \$1,887.97 projected for Bangladesh.

### What is Per Capita Income?

It is arrived at by dividing the total GDP by the total population.

### Three reasons why India's per capita income has fallen below Bangladesh this year:

1. **Growth rate:** Both countries have been growing faster in 2004. But, since 2017 onwards, India's growth rate has decelerated sharply while Bangladesh's has become even faster.
2. **Population growth:** In the last 15 years, India's population grew faster (around 21%) than Bangladesh's population (just under 18%).
3. **The most immediate factor was the relative impact of Covid-19** on the two economies in 2020. While India's GDP is set to reduce by 10%, Bangladesh's is expected to grow by almost 4%.

### What helped Bangladesh stay ahead?

1. A key driver of growth has been **the garment industry where women workers gave Bangladesh the edge to**

**corner the global export markets from which China retreated.**

2. The structure of Bangladesh's economy is such that **its GDP is led by the industrial sector, followed by the services sector.** Both these sectors create a lot of jobs and are more remunerative than agriculture.
3. Over the past two decades, Bangladesh **improved on several social and political metrics** such as health, sanitation, financial inclusion, and women's political representation.
4. On financial inclusion, according to **the World Bank's Global Findex database**, while a smaller proportion of its population has bank accounts, **the proportion of dormant bank accounts is quite small when compared to India.**
5. Bangladesh is also far ahead of India in **the latest gender parity rankings.**
6. It has performed well in **the Global Hunger Index** too.

### What about other neighbours?

China's per capita GDP in 2020 is projected to be \$10,839.43, Nepal and Sri Lanka, are projected to be \$1,115.56 and \$3,697.89.

### What next then?

The IMF's projections show that India is likely to grow faster next year and in all likelihood again surge ahead. But, given Bangladesh's lower population growth and faster economic growth, India and Bangladesh are likely to be neck and neck for the foreseeable future in terms of per capita income.

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Page No. 42  
Page No. 42



## China- Taiwan

### In The News

China has asked **India to approach ties with Taiwan “prudently and properly”**, and said it would “firmly oppose” any official exchanges between New Delhi and Taipei.

**Taiwan and India have been cooperating in various fields.**

**India has refused to endorse the “one-China” policy since 2010.**

### What's the issue?

The statement from China came in response to reports that **India and Taiwan were considering going forward with talks on a trade deal.**

- India and Taiwan in 2018 already signed a bilateral investment agreement.
- India-Taiwan trade ties have expanded since, and Taiwanese firms are prominent investors in India, although India and Taiwan do not maintain formal diplomatic relations.

### China- Taiwan relations- Background:

China has claimed Taiwan through its “**one China” policy** since the Chinese civil war forced the defeated

Kuomintang, or Nationalist, to flee to the island in 1949 and has vowed to bring it under Beijing’s rule, by force if necessary.

- **China is Taiwan’s top trading partner**, with trade totaling \$226 billion in 2018. Taiwan runs a large trade surplus with China.
- While **Taiwan is self-governed and de facto independent**, it has **never formally declared independence from the mainland.**
- Under the “one country, two systems” formula, **Taiwan would have the right to run its own affairs**; a similar arrangement is used in Hong Kong.
- **Taiwan is a member of the World Trade Organization,**

Asia-Pacific Economic Cooperation and Asian Development Bank under various names.

### Indo- Taiwan relations:

Although they do not have formal diplomatic ties,

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Page No. 2020  
Page 43

## Indo- Nepal border issue

### In The News

After months of simmering dispute with India over the Kalapani issue, Prime Minister K.P. Sharma Oli recently indicated a softer line when he used **an old map of Nepal** to greet everyone on the festival of Vijaya Dashami.

- The old map does not show the region of **Kalapani-Lipulekh-Limpiyadhura**, which is part of India's Pithoragarh district.

### What's the issue?

**Kalapani** is shown as part of Nepalese sovereign territory in the new map, which was unveiled on May 20, and made part of the insignia of the Nepalese state by an amendment on June 13.

### Where is Kalapani located?

Located in the **easternmost corner of Uttarakhand's Pithoragarh district**.

Shares a border on the north with the **Tibet Autonomous Region of China** and **Nepal** in the east and south.

It is wedged in between **Limpiyadhura, Lipulekh and Kalapani**.



## Quad Grouping

### Context:

U.S. Deputy Secretary of State Stephen Biegun has said that eventually the Quad group of countries should become **more formalised once the parameters of cooperation were understood.**

### Why there is a need for formalisation?

Despite renewed efforts, the QUAD has faced criticism over its lack of formal structure. There have been calls for **institutionalisation, a formal agreement to transform the group into a formidable anti-China bloc.**

A lot has changed over the years. Each member state has faced the heat of China's increased aggression.

1. China has grown in might and influence and is keen on picking up fights.
2. After attempting to influence Australia's domestic policies, it slapped punitive tariffs on the country.
3. It is engaged in what has become a routine border confrontation with India.
4. China has flared up territorial disputes with Japan with regards to the Senkaku Islands and is battling a fully-fledged trade war with the United States.

### What has been India's stand on this?

While India has been historically hesitant over explicitly defining its anti-China associations, the recent border confrontations at Ladakh give us enough cause to reassess the profits and pitfalls of such formalisation.

### What is Quad grouping?

The quadrilateral security dialogue **includes Japan, India, United States and Australia.**

- All four nations find a common ground of being the democratic nations and common interests of unhindered maritime trade and security.

### Genesis:

The grouping traces its genesis to 2004 when the four countries came together to coordinate relief operations in the aftermath of the tsunami.

- It then met for the first time in 2007 on the sidelines of the Association of South East Asian Nations (ASEAN) summit.
- The intention was to enhance maritime cooperation between the four nations.

### Significance of the grouping:

- Quad is an opportunity for like-minded countries to share notes and collaborate on projects of mutual interest.
- Members share a vision of an open and free Indo-Pacific. Each is involved in development and economic projects as well as in promoting maritime domain awareness and maritime security.
- It is one of the many avenues for interaction among India, Australia, Japan and the US and should not be seen in an exclusive context.

### What are China's views on the Quad?

There is a general understanding that **the Quad would not take on a military dimension against any country.**

The strategic community in China, nevertheless, had branded it **an emerging “Asian NATO”.**

Notably, Japanese PM Shinzo Abe's **“Confluence of Two Seas”** address to the Indian Parliament gave a fresh impetus to the Quad concept. This recognised the economic rise of India.

### Conclusion:

QUAD is, through its intent, **a label, a geostrategic vision and a foreign policy instrument for India to balance China via global networking.** When a tipping point is reached, it provides scope for the forging of an alliance amongst the world's most formidable militaries. Until then, the QUAD's future as a platform for multilateral engagement is secure.

## New H-1B curbs

### In The News

The United States has issued new rules that make it harder for US companies to employ people on **H-1B non-immigrant visas**.

### The Interim Final Rules change:

- The definitions of specialty occupation, employer and employee-employer relationship.
- Limit visa validity to one year for a worker at a third-party work site.
- Increases enforcement and investigations for these visas.

### Concerns for India:

The new rules will impact Indian services and staffing firms who often place workers on projects at third-party locations.

- Indian nationals have received over 70% of the H-1B visas issued over the last few years, even as the share of Indian tech companies in the top 10 visa recipients has been dropping steadily in favour of American tech companies such as Apple, Google and Amazon.

### Why should the US be worried about these changes?

The changes will restrict access to talent and harm the American economy.

They would also endanger U.S. jobs, put U.S. interests at risk and slow down R&D into solutions for COVID-19 crisis.

### Background:

#### What are H-1B, H-2B, L and other work visas?

In order to fill a vacuum of highly-skilled low-cost employees in IT and other related domains, the US administration issues a certain number of visas each year which allows companies from outside the US to send employees to work on client sites.

1. H-1B: Person is Specialty Occupation: To work in a specialty occupation. Requires a higher education degree of its equivalent.

2. L1 visas allows companies to transfer highly

skilled workers to US for a period of up to seven years.

3. H-2B visas allow food and agricultural workers to seek employment in the US.

4. J-1 Visas: It is for students on work-study summer programmes.

## Iran's Nuclear Deal

### In The News

China backs Iran nuclear deal, calls for new West Asia forum.

- The forum would “enhance mutual understanding through dialogue and explore political and diplomatic solutions to security issues in the West Asia”.

### Background:

Iran has been locked in an acrimonious relationship with Saudi Arabia, the other major West Asian power, over the war in Yemen, Iranian influence in Iraq and Saudi support for Washington's sanctions on Tehran.

### What was the Nuclear deal all about?

Iran agreed to rein in its nuclear programme in a 2015 deal struck with the US, UK, Russia, China, France and Germany.

- Under the **Joint Comprehensive Plan of Action (JCPOA)** Tehran agreed to significantly cut its stores of centrifuges, enriched uranium and heavy-water, all key components for nuclear weapons.
- The JCPOA established the **Joint Commission**, with the negotiating parties all represented, to monitor implementation of the agreement.

### Why has US pulled out of the deal?

Trump and opponents to the deal say it is flawed because it

gives Iran access to billions of dollars but does not address Iran's support for groups the U.S. considers terrorists, like Hamas and Hezbollah. They note it also doesn't curb Iran's development of ballistic missiles and that the deal phases out by 2030. They say Iran has lied about its nuclear program in the past.



## Closed Clique

### In The News

China has reiterated its criticism of the meeting of the Foreign Ministers of Quad (India, Australia, Japan and the US) in Tokyo, saying it is opposed to the formation of "**exclusive cliques**" harming third party's interests.

### Background:

The foreign ministers from the Indo-Pacific nations known as the Quad group - the US, Japan, India and Australia recently met in Tokyo in what is their first in-person talks since the coronavirus pandemic began.

### Why is China worried?

- The meeting took place in the backdrop of China's aggressive military behaviour in the Indo-Pacific, South China Sea and along the Line of Actual Control (LAC) in eastern Ladakh.
- Besides, the strategic community in China has already branded the quad as an **emerging “Asian NATO”**.

### What is Quad grouping?

The **quadrilateral security dialogue** includes Japan, India, United States and Australia.

- All four nations find a common ground of being the democratic nations and common interests of unhindered maritime trade and security.
- The idea was **first mooted by Japanese Prime Minister Shinzo Abe in 2007**. However, the idea couldn't move ahead with Australia pulling out of it.

### Significance of the grouping:

- Quad is an opportunity for like-minded countries to share notes and collaborate on projects of mutual interest.
- Members share a vision of an open and free Indo-Pacific. Each is involved in development and economic projects as well as in promoting maritime domain awareness and maritime security.

## Shanghai Cooperation Organisation

### In The Next

7th Justice Ministers' Meeting of Shanghai Cooperation Organisation (SCO) Member States to be hosted by Union Law Minister Shri Ravi Shankar Prasad on 16th October, 2020.

### About the Shanghai Cooperation Organisation (SCO):

It is a permanent intergovernmental international organisation.

- It's creation was announced on 15 June 2001 in Shanghai (China) by the Republic of Kazakhstan, the People's Republic of China, the Kyrgyz Republic, the Russian Federation, the Republic of Tajikistan, and the Republic of Uzbekistan.
- It was preceded by the Shanghai Five mechanism.
- The Shanghai Cooperation Organisation Charter was signed during the St. Petersburg SCO Heads of State meeting in June 2002, and entered into force on 19 September 2003.
- The SCO's official languages are Russian and Chinese.

Republic of China, the Kyrgyz Republic, the Islamic Republic of Pakistan, the Russian Federation, the Republic of Tajikistan, and the Republic of Uzbekistan.

- SCO counts four observer states, namely the Islamic Republic of Afghanistan, the Republic of Belarus, the Islamic Republic of Iran and the Republic of Mongolia.
- SCO has six dialogue partners, namely the Republic of Azerbaijan, the Republic of Armenia, the Kingdom of Cambodia, the Federal Democratic Republic of Nepal, the Republic of Turkey, and the Democratic Socialist Republic of Sri Lanka.

### The SCO's main goals are:

- Strengthening mutual trust and neighbourliness among the member states.
- Promoting their effective cooperation in politics, trade, the economy, research, technology and culture.
- Making joint efforts to maintain and ensure peace, security and stability in the region.
- Moving towards the establishment of a democratic, fair and rational new international political and economic order.

### Currently:

- SCO comprises eight member states, namely the Republic of India, the Republic of Kazakhstan, the People's

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Page No. 49  
Page No. 49

## Anti-Corruption Working Group

### In The News

**Saudi Arabia** is hosting the first-ever Ministerial Meeting of the G-20 Anti-Corruption Working Group (ACWG) virtually.

### About ACWG:

Established by G20 Leaders at the Toronto Summit in 2010.

- Responsible for updating and implementing the **G20 Anti-corruption Action Plan**.
- Reports to G20 Leaders.
- It cooperates closely with and supports the work of relevant international organizations, including the **Organization of Economic Cooperation and Development**, the **United Nations**, the **World Bank**, the **International Monetary Fund** and the **Financial Action Task Force**.

### What is the G20?

The G20 is an annual meeting of leaders from the countries with the largest and fastest-growing economies.

Its members account for 85% of the world's GDP, and two-thirds of its population.

- The **G20 Summit** is formally known as the “**Summit on Financial Markets and the World Economy**”.

### Genesis of G20:

After the **Asian Financial Crisis in 1997-1998**, it was acknowledged that the participation of major emerging market countries is needed on discussions on the international financial system, and **G7 finance ministers agreed to establish the G20 Finance Ministers and Central Bank Governors meeting in 1999**.

### Full membership of the G20:

Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, the United Kingdom, the United States and the European

Union.

### What is G20+?

The **G20 developing nations**, also called **G21/G23/G20+** is a bloc of developing nations which was established on **August 20, 2003**.

Its origins can be traced to the **Brasilia Declaration** signed by the foreign ministers of India, Brazil and South Africa on 6th June 2003.

- The G20+ is responsible for **60% of the world population**, **26% of the world's agricultural exports** and **70% of its farmers**.

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## Nobel Prize In Economics

### In The News

This year's Nobel Economics Prize has been awarded to U.S. economists Paul Milgrom and Robert Wilson for their **works on auction theory**.

### More in news

- They won the Nobel Economics Prize for improvements to auction theory and **invention of new auction formats that could also be applied to selling of goods and services** (such as radio frequencies) that are difficult to sell through traditional auction formats.
- The discoveries have benefitted sellers, buyers and taxpayers around the world.

- ✓ For instance, in India the spectrum is allocated to the highest bidder; this is also one of the reasons why telecom sector is under heavy debt.
- ✓ To avoid such problems in auction **India should chose the ‘second-price’ auction theory that allows the winning bidder** (or the highest bidder) **to pay what the second-highest bidder offered.**

### What is auction theory?

- It is a **concept of transparent allocation of resources or items of business in a free market** to the best bidder for optimum utilization.
- It is a branch of applied economics and prescribes different sets of rules or designs for transactions.
- Essentially, it is about how auctions lead to the discovery of the price of a commodity.

#### Auction theory studies:

- o How auctions are designed?
- o What rules govern the auctions?
- o How bidders behave in auction?
- o What outcomes are achieved through auction?
- **Benefits of the auction theory:**
  - o It helps to **understand the bidders' behaviours**
  - o It helps in **choosing the best design/format** of the auction for various goods and services.
  - o It also helps **understand the evolving nature of auction** and pricing of items and resources in a country or globally.
  - o It helps to **understand the outcomes of different rules for auction** and consequent final prices.
  - o It also helps to **understand why governments across the world should not put too much emphasis on maximizing revenues**

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Page No. 5200  
Page FT 2020



## Additional Tier-1 bonds

### In The News

Securities and Exchange Board of India has tightened its regulations of additional tier-1 bonds or AT-1 bonds and ensured that these risky instruments are less accessible to retail investors.

### Changes introduced:

- Banks can issue these bonds only on electronic platform.
- Only institutional investors could subscribe to them.
- There shall be a minimum allotment size and trading lot size of ₹1 crore.

(An institutional investor is a company or organization that invests money on behalf of other people. Mutual funds, pensions, and insurance companies are examples.)

### Basics:

#### What are Additional Tier-1 bonds?

Under the **Basel III framework**, banks' regulatory capital is divided into **Tier 1 and Tier 2 capital**.

- **Tier 1 capital** is subdivided into **Common Equity (CET) and Additional Capital (AT1)**. AT1 bonds are a type of **unsecured, perpetual bonds** that banks issue to shore up their core capital base to meet the Basel-III norms.

### Key features:

- These have **higher rates than tier II bonds**.
- These bonds have no maturity date.
- The issuing bank has **the option to call back** the bonds or repay the principal after a specified period of time.
- The attraction for investors is **higher yield** than secured bonds issued by the same entity.
- **Individual investors too can hold these bonds**, but mostly high net worth individuals (HNIs) opt for such higher risk, higher yield investments.
- Given the higher risk, **the rating for these bonds is one to four notches**

**lower than the secured bond series of the same bank.**

### However, it has a two-fold risk:

- First, the issuing bank has the discretion to skip coupon payment. Under normal circumstances it can pay from profits or revenue reserves in case of losses for the period when the interest needs to be paid.
- Second, the bank has to maintain a common equity tier I ratio of 5.5%, failing which the bonds can get written down. In some cases there could be a clause to convert into equity as well.

Given these characteristics, AT1 bonds are also referred to as **quasi-equity**.

### Differences between Common Equity (CET) and Additional Capital (AT1):

Equity and preference capital is classified as CET and perpetual bonds are classified as AT1.

- By nature, CET is the equity capital of the bank, where returns are linked to the banks' performance and therefore the performance of the share price.
- However, AT1 bonds are in the nature of debt instruments, which carry a fixed coupon payable annually from past or present profits of the bank.

## Insurance Ombudsman

### In The Next

The **Insurance Regulatory and Development Authority of India (IRDAI)** has advised public sector general insurers to appoint a nodal officer each for the 17 **insurance ombudsman offices** to ensure proper and timely disposal of complaints.

### About Insurance Ombudsman:

The Insurance Ombudsman scheme was created by the Government of India for individual policyholders to have their complaints settled out of the courts system in a cost-effective, efficient and impartial way.

### Who can approach?

Any person who has a grievance against an insurer, may himself or through his legal heirs, nominee or assignee, make a complaint in writing to the Insurance ombudsman.

### One can approach the Ombudsman with complaint only if:

One has first approached insurance company with the complaint and;

1. They have rejected it
2. Not resolved it to satisfaction or
3. Not responded to it at all for 30 days

And the value of the claim including expenses claimed should not be above Rs 30 lakhs.

### Appointment of Ombudsman:

The Ombudsman is a person in the insurance industry, civil or judicial services, and is appointed by the insurance council.

- The serving term of the Insurance Ombudsman is three years.

### The settlement process:

#### Recommendation:

The Ombudsman will act as mediator and

- Arrive at a fair recommendation based on the facts of the dispute
- If you accept this as a full and final settlement, the Ombudsman will inform the company which should comply with the terms in 15 days

### Award:

If a settlement by recommendation does not work, the Ombudsman will Pass an award within 3 months of receiving all the requirements from the complainant and which will be binding on the insurance company.

### Once the Award is passed:

The Insurer shall comply with the award within 30 days of the receipt of award and intimate the compliance of the same to the Ombudsman.

## What Are Govt Securities

### In The News

The Reserve Bank of India (RBI) has announced that it had decided to purchase **Government securities** for an aggregate amount of ₹20,000 crore under **Open Market Operations (OMO)**.

- Policy actions by RBI like change in repo rates, cash-reserve ratio and open-market operations.

### What are govt securities?

A government security (G-Sec) is a **tradeable instrument issued by the central government or state governments**.

### Key features:

- It **acknowledges the government's debt obligations**.
- Such securities **can be both short term** (treasury bills — with original maturities of less than one year) or **long term** (government bonds or dated securities — with original maturity of one year or more).
- The **central government issues both**: treasury bills and bonds or dated securities.
- **State governments issue only bonds or dated securities**, which are called the **state development loans**.
- Since they are issued by the government, they carry no risk of default, and hence, are called **risk-free gilt-edged instruments**.
- **FPIs are allowed to participate** in the G-Secs market within the quantitative limits prescribed from time to time.

### Why are G-secs volatile?

G- Sec **prices fluctuate** sharply in the secondary markets. Factors affecting their prices:

- **Demand and supply** of the securities.
- **Changes in interest rates** in the economy and other macro-economic factors, such as, liquidity and inflation.
- **Developments in other markets** like money, foreign exchange, credit and capital markets.
- **Developments in international bond markets**, specifically the US Treasuries.

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Page No. 55  
Page No. 55

## Swamitva Scheme

### In The News

The SVAMITVA (Survey of Villages and Mapping with Improvised Technology in Village Areas) scheme was recently launched by the Prime Minister on the occasion of National Panchayati Raj.

### About SVAMITVA Scheme

It is a **Central Sector Scheme** that aims to provide an **integrated property validation solution for rural India**, engaging the latest Drone Surveying technology, for demarcating the inhabitant (Aabadi) land in rural areas.

- It aims to **update the ‘record-of-rights’ in the revenue/property registers and issue property cards to the property owners** in rural areas.
- It is a **collaborative effort** of the Ministry of Panchayati Raj (MoPR) (Nodal Ministry for implementation of the scheme), State Panchayati Raj Departments, State Revenue / Land Records Departments and Survey of India (technology partner for implementation).
- **Key Components of the scheme**
  - **Establishment of CORS network:** Continuously Operating Reference Stations (CORS) is a network of reference stations that supports establishment of Ground Control Points, which is an important activity for accurate Georeferencing, ground truthing and demarcation of Lands.
  - **Large Scale Mapping (LSM) using Drone:** Rural inhabited (abadi) area would be mapped by **Survey of India** using drone Survey to generate **high resolution and accurate maps** to based on which, property cards would be issued to the rural household owners.
  - **Information, Education and Communication:** Awareness program to sensitize the rural population about the surveying methodology and its benefits.
  - **Enhancement of Spatial Planning**

**Application “Gram Manchitra”:** The digital spatial data/maps created under drone survey shall be leveraged for creation of spatial analytical tools to support preparation of Gram Panchayat Development Plan (GPDP).

- **Online Monitoring and reporting dashboard** would monitor the progress of activities.
- **Program Management Units:** The scheme will be implemented through the regular departmental mechanisms, which will be assisted by Programme Management Units at the National and State level.
- **Coverage:** The Pilot Phase for the year 2020-21 will extend to six States (Haryana, Karnataka, Madhya Pradesh, Maharashtra, Uttar Pradesh and Uttarakhand) covering approx. 1 lakh villages and **CORS network establishment** is planned for two States (Punjab and Rajasthan).
  - The scheme aims to cover all 6.62 lakh villages in the country by the end of financial year 2023-24.

### Intended Benefits of the scheme

- **Financial stability to the citizens in rural India:** A ‘record of rights’ will enable rural households to use their property as a financial asset for taking loans and other financial benefits.
- **Enhanced collection of property tax:** Updation of property and asset register will strengthen tax collection and demand assessment process of Gram Panchayats.
  - The 2018 Economic Survey estimated only 19% of the potential property tax was being collected by Gram Panchayats
- **Making land marketable:** The property cards will help increase liquidity of land parcels in the market.
- **Reduction in property related disputes and legal cases:** through creation of accurate land records.
- **Improved quality of GPDP:** GIS maps of

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**Gram Panchayat and community assets** like village roads, ponds, canals, open spaces, school, Anganwadi, Health sub-centres, etc. can be used to prepare better-quality GPDP.

- o Further, these GIS maps and spatial database would also help in **preparation of accurate work estimates**, allocation of construction permits, elimination of encroachments, etc. for various works undertaken by Gram Panchayats and other Departments of State Government.
- **Aid relief work:** Accurate land records will make relief and compensation work easier in disaster affected areas.

procedures to build consumer confidence and encourage transactions in these areas.

## Conclusion

Modernising land records is one of the foundational steps towards mending and reimagining broken institutional arrangements, which are pivotal in today's circumstances. This scheme will go a long way towards building financial strength and independence of the local self-governance institutions, the Gram Panchayats.

## Potential issues in implementation of the scheme

- **Reluctance in community:** Land and boundaries are sensitive topics among rural people, which can discourage them to participate in such policy reforms.
- **Exclusion of vulnerable people:** Dalits, women, tenant farmers and tribal communities are often excluded from accessing land, even though they may legitimately have a claim.
- **Lack of functional market in rural areas** for the using land as a marketable collateral

## Way Forward

- **Engaging the community from the beginning:** Involving the community and ensuring high level of transparency can create an environment of greater acceptance of the process and reduce potential for disputes.
- **Protecting the most vulnerable people:** It would be important to build safeguards in the implementation process to ensure legitimate claims of the most vulnerable people are not crowded out.
- **Establish a grievance redressal system:** A grievance redressal system will effectively addresses people's concerns in a transparent and fair manner and will aid in smooth implementation of the program.
- **Enable markets to work:** States should simplify the legislative and regulatory



## Natural Gas Marketing

### In The News

The Cabinet Committee on Economic Affairs has approved ‘**Natural Gas Marketing Reforms**’, taking another significant step to move towards gas based economy.

### Natural Gas Marketing Reforms

- **Standardized e- bidding procedure:** The Director General of Hydrocarbons (DGH) will propose a standardized e-bidding platform to promote market price discovery of natural gas.
- **Producers will be barred from participating in the bidding:** Gas producing companies themselves will not be allowed to participate in the bidding process but affiliate companies would be allowed to bid.

### Issues in the reforms

- **Very limited impact:** Nominated fields, accounting for almost 80% of India’s gas production at present, will be outside the benefit zone of the new policy.
- **Disincentive for the old players:** As only new entrants are given the benefit. The new entities will take advantage of e- bidding platform and discover the viable price. The older players would be at disadvantage.
- **Allowing only affiliates:** Principle behind this is not very clear and only time would tell how not allowing the main gas producing companies would be beneficial to the sector.

### Way ahead

The recent step, in principle, is very good for enhancing domestic production of natural gas. However, this step should be complemented with following reforms to harness the expected benefits:

- **Doing away with APM:** Prices under the APM regime is half of what India pays for the import of LNG. Such pricing mechanism has **reduced incentives for domestic producers** to raise supplies. According to IEA this price mechanism focuses too much on reducing the price

level rather than the creation of a **market-based system** to reflect the domestic supply-demand structure in India,

- **Tax reforms:** Since natural gas does not fall under the GST, **gas consumption suffers from cascading effect of tax.** According to IEA, "Bringing natural gas under the GST and introducing a postage stamp gas transport tariff would reduce these costs and create a level playing field with other fuels."
- **Gas exchange hub (IGX):** Trading through this platform is open only for imported liquefied natural gas (LNG). Allowing domestic producers to trade on this platform **would further the transparent price discovery** on the basis of buyers and sellers interacting in an open market. According to IEA this may also pave the way for removal of multiple price regimes.

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Page No. 2020  
Page FT 2020

## Technology and Border Management

### In The News

Indian Army is working on converting the existing border fence into a smart fence integrated with several sensors through a hybrid model.

### More on news

- The new hybrid model of the **smart fence** being tested will **cost around ₹10 lakh per km** and **60 km** is being attempted this year.
- The fence will be integrated with **LIDAR (Light Detection and Ranging) sensors, infrared sensors and cameras** among others.
- The entire fence along **700 km stretch of Line of Control (LOC)** will be converted into **smart fence to improve surveillance and check infiltration**.

### Role of technology in Border Management

- **Upgrading existing system:** Technology can be integrated with the existing systems to facilitate better detection and interception by the man behind the machine.
  - At present, border guarding is **almost fully dependent on human surveillance**. This makes border management a time-consuming and complex task.
- **Checking infiltration:** It can be help to detect infiltration via land, underwater, air and tunnels by deploying close circuit television cameras, thermal imagers and night vision devices etc.
- **Facilitate Cross Border Trade:** For example: Blockchain technology can help quickly and securely process transactions, it also makes much easier to identify and trace illegitimate trade.
- **Improved Intelligence inputs and Surveillance:** through Remote sensing satellites, radar satellites and satellites with synthetic aperture radar (SAR) sensors which are capable of providing day and night allterrain and all-weather inputs.
- **Madhukar Gupta Committee on border**

**protection** had recommended the Union Government to **strengthen border protection and address vulnerabilities in fencing** along the Indo-Pakistan border. This led to **implementation of CIBMS in 2015**.

### Issues related to Border management in India

**Porosity of borders:** International borders with Pakistan and Bangladesh run through diverse terrain including deserts, marshes, plains and mountains.

- This porosity of borders facilitates various illegal activities such as smuggling, trafficking of humans, drugs and arms and infiltration.
- **Contested International borders:** History of mistrust and constant border skirmishes with Pakistan along line of control (LOC) makes India highly susceptible to cross-border terrorism.
  - Similarly, India's border with **Myanmar** is **threatened by several insurgent groups** that have **found sanctuaries in jungles** along the border.
  - Political boundary issues of **“enclaves and adverse possessions”** in **Bangladesh** have resulted in political sensitivity along the entire eastern border.
- **Inefficiency in Border management:** Indian borders continue to be guarded by military and police forces that report to different ministries in the Centre and states, making the border management task arduous and leading to duplication of efforts by the security forces.
- **Lack of critical infrastructure:** Critical infrastructure such as observation towers, bunkers, Border Flood Lights etc. are lacking in many border areas which also prevent deployment of hi-tech equipment.
- **Poor intelligence and resource efficiency:** Security forces are ill-equipped to handle border management given poor intelligence

capabilities and severe resource deficiency.

## Conclusion

One of the main aspects of national sovereignty is the safety and security of states' borders. **If the borders are safe and stable only then can the country enjoy economic and social prosperity.**

Efforts should be made to utilise the **knowledge available with private sector** in the context of **electronic and surveillance equipment** and maintenance and updating of data such as biometric details.

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## Rashtriya Kamdhenu Aayog

### In The News

Rashtriya Kamdhenu Aayog begins nationwide campaign to celebrate “**Kamdhenu Deepawali Abhiyan**” -

Promoting extensive use of cow-dung/ Panchgavya products this Diwali Festival.

- RKA aims reaching 11 crore families to ignite 33 crore Diyas made of cow-dung during this year’s Deepawali festival.

### Significance of the campaign:

- Apart from generating business opportunities for thousands of cow-based entrepreneurs/farmers, the use of cow-dung products will lead to a cleaner and healthier environment.
- By providing an environmentally friendly alternative to Chinese made Diyas, the campaign will boost the ‘Make in India’ vision also.

### About the Rashtriya Kamdhenu Aayog:

Constituted in 2019, the Aayog is a high powered **permanent apex advisory body** with the mandate to help the Central Government to develop appropriate programmes for conservation, sustainable development and genetic upgradation of indigenous breeds of cows.

It comes under **the Ministry of Fisheries, Animal Husbandry and Dairying**.

- Rashtriya Kamdhenu Aayog will function as an **integral part of Rashtriya Gokul Mission**.

### Functions:

- Review existing laws, policies as well as suggest measures for optimum economic utilization of cow wealth for enhanced production and productivity, leading to higher farm income and better quality of life for the dairy farmers.
- Advise and guide the Central Government and State Governments on policy matters concerning conservation, protection, development and welfare of cows and their progeny.

- Promote schemes to encourage the use of organic manure and recommend suitable measures including incentive schemes for use of dung or urine of cow in organic manure by farmers to minimize the use of chemical fertilizers.
- Make provisions for solutions to the problems related to abandoned cows in the country by providing technical inputs to Gaushalas, Gosadans and pinjarapoles.
- Develop pastures or grazing lands and to associate with institutions or other bodies whether private or public, for the purpose of developing pastures and Gauchars.

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## Draft Model Act On Land Titles

### In The News

The NITI Aayog has released **the draft model Act and rules for states on conclusive land titling.**

**Objective:** To reduce litigations and ease the land acquisition process for infrastructure projects.

Conclusive land titling will **facilitate easy access of credit to farmers and reduce a large number of land- related litigations.**

### Under The Model Act:

1. **State governments will have the power to order for establishment, administration and management of a system of title registration of immovable properties.**
2. **The land dispute resolution officer and land title appellate tribunal** are one-shot institutions which will fade away as the work reduces.
3. After three years of its notification, **the register of title attains conclusivity without any external action.**
4. **Conclusive land titles are guaranteed by the state for correctness and entail provision for compensation by the state in case of any dispute.**
5. Any person aggrieved may file an objection before **the Title Registration Officer within three years from the date of such notification.** Following this, the Title Registration Officer shall make an entry to that effect in Register of Titles and in the Register of Disputes and refer the case to the land dispute resolution officer.
6. A party aggrieved with an order of the land dispute resolution officer may file an appeal before **the Land Titling Appellate Tribunal** within 30 days of passing of such an order.
7. A special bench of High court shall be designated to deal with **appeals against the orders passed by the Land Titling Appellate Tribunal.**

### Need for and significance of Conclusive Land titles:

**Conclusive land titles** are guaranteed by the state for their correctness and entail provision for compensation by the state in case of any disputes.

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## IFSCA Introduces Framework For Regulatory Sandbox

### In The News

The International Financial Services Centres Authority (IFSCA) has introduced a **framework for “Regulatory Sandbox”**.

### Firstly, what is a regulatory sandbox?

It is a safe harbour, where businesses can test innovative products under relaxed regulatory conditions.

- Typically, participating companies release new products in a controlled environment to a limited number of customers for a limited period of time.

### Now, under the new framework released by IFSCA:

- The Regulatory Sandbox **shall operate within the IFSC located at GIFT City**.
- Entities operating in the **capital market, banking, insurance and financial services space** shall be granted certain facilities and flexibilities to experiment with **innovative FinTech solutions** in a live environment with a limited set of real customers for a limited time frame.
- These features shall be **fortified with necessary safeguards for investor protection and risk mitigation**.

### About the International Financial Services Centres Authority:

- It is a statutory body established in 2020.
- It works under the Department of Economic Affairs, Ministry of Finance.
- Headquartered in Gandhinagar, Gujarat.

### Roles and functions:

- Its main function is to develop and regulate the financial products, financial services and financial institutions located/performed in the International Financial Services Centres in India.
- The Authority is empowered to exercise the powers of RBI, SEBI, IRDAI and PFRDA in respect of financial services, financial products and financial institutions performed/located in the

international financial services centres in the country.

### Composition:

Chairperson, one Member each to be nominated by the Reserve Bank of India (RBI), the Securities Exchange Board of India (SEBI), the Insurance Regulatory and Development Authority of India (IRDAI) and the Pension Fund Regulatory and Development Authority (PFRDA), two members to be dominated by the Central Government and two other whole-time or full-time or part-time members.

- They will have a three-year term subject to reappointment.

### Can an IFSC be set up in a special economic zone (SEZ)?

The SEZ Act 2005 allows setting up an IFSC in an SEZ or as an SEZ after approval from the central government.

## First Seaplane Project in India

### In The News

**India's first seaplane service in Gujarat** is set to begin from 31 October, the anniversary of Sardar Vallabhbhai Patel.

- It will **connect Sabarmati Riverfront in Ahmedabad to the Statue of Unity in Kevadia.**
- The service will be **operated by Spicejet Airlines.**

### Significance of seaplane projects and the potential:

- **Given the large and small waterbodies** that dot the country, India provides an ideal opportunity for seaplane operations.
- Unlike a conventional aircraft, **a seaplane can land both on a waterbody and on land**, thereby opening up more opportunities for business and tourism.
- Such projects provide **faster and hassle-free travel option for the long, treacherous and hilly regions of the country.**

### Environmental concerns:

The water aerodrome is not a listed project/activity in the Schedule to **the Environmental Impact Assessment Notification, 2006 and its amendments.**

- However, the Expert Appraisal Committee was of the opinion that the activities proposed under **the water aerodrome project may have a similar type of impact as that of an airport.**

### May affect Shoolpaneshwar Wildlife Sanctuary:

- The sanctuary is located at an approximate aerial distance of 2.1 km from the proposed project site.

### Positive impact on the environment:

During seaplane operations, there will be **turbulence created in the water while takeoff and landing of seaplanes.**

- This will lead to more operation process i.e. **mixing of oxygen in the water.**
- This will have a positive impact on the aquatic ecosystem near seaplane operations **increasing oxygen content and decreasing carbon content in this system.**

### How are these services regulated?

**Inland Waterways Authority of India (IWAI)** will manage the Project of Seaplane in Inland Waterways and

**Sagarmala Development Company Limited (SDCL)** will manage the Projects of seaplane in Coastal Areas.

- IWAI and SDCL will coordinate with the Ministry of Shipping, flight operators, Ministry of Tourism as well as DGCA.

## Nobel Prize in Chemistry

### In The News

2020 Nobel Prize in Chemistry Awarded for **CRISPR/Cas9 'Genetic Scissors'**.

- Emmanuelle Charpentier and American Jennifer Doudna share the prize for developing the **CRISPR/Cas9 tool** to edit the DNA of animals, plants and microorganisms with precision.
- It is possibly **the only time in the history of Nobel Prize that two women have been declared the sole winners.**

### What is CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats)? How it works?

It locates the specific area in the genetic sequence which has been diagnosed to be the cause of the problem, cuts it out, and replaces it with a new and correct sequence that no longer causes the problem.

### Details (For better understanding- need not mug up):

1. An RNA molecule is programmed to locate the particular problematic sequence on the DNA strand, and a special protein called **Cas9** (genetic scissor) is used to break and remove the problematic sequence.
2. A DNA strand, when broken, has a natural tendency to repair itself. But the auto-repair mechanism can lead to the re-growth of a problematic sequence. Scientists intervene during this auto-repair process by supplying the desired sequence of genetic codes, which replaces the original sequence.
3. It is like cutting a portion of a long zipper somewhere in between, and replacing that portion with a fresh segment.

### What is the significance of this technology?

1. **It's simple:** Its simplicity has often been compared to the 'Cut-Copy-Paste' mechanism in any word processor (or probably, the equally common 'Find-Replace' mechanism).

2. **Potential applications:** Its uses can potentially transform human beings, and all other life forms. It can potentially eliminate genetic, and other, diseases, multiply agricultural production, correct deformities, and even open up the more contentious possibilities of producing 'designer babies', and bringing cosmetic perfection.
3. **Efficient:** Because the entire process is programmable, it has a remarkable efficiency, and has already brought almost miraculous results. Genetic sequences of disease-causing organisms can be altered to make them ineffective.
4. **For Agriculture:** Genes of plants can be edited to make them withstand pests, or improve their tolerance to drought or temperature.

### Ethical Concerns involved:

**2018 Designer Babies:** In November 2018, a Chinese researcher claimed that he had **altered the genes of a human embryo** that eventually resulted in the birth of twin baby girls. This was the **first documented case of a 'designer babies'** being produced using the new gene-editing tools like **CRISPR**, and this raised ethical concerns.

- In the case of the Chinese twins, the genes were edited to ensure that **they do not get infected with HIV**, the virus that causes AIDS. This special trait would then be inherited by their subsequent generations as well.

### What was the concern then?

The concerns were over **the ethics of producing babies with particular genetic traits.**

- The problem in this case, potential infection to HIV virus, already had other alternative solutions and treatments. What made matters worse was that **the gene-editing was probably done without any regulatory permission or oversight.**

Besides, CRISPR technology wasn't 100 per cent accurate, and it is possible that **some other genes could also get altered by mistake.**

## National Green Tribunal (NGT)

### In The News

The National Green Tribunal (NGT) recently completed 10 years.

### About National Green Tribunal

- The NGT is a **statutory and quasi judicial body** established under the National Green Tribunal Act, 2010.
- It aims for effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources.
- The Tribunal is not bound by the Code of Civil Procedure, 1908 or the the Indian Evidence Act, 1872 but is **guided by principles of natural justice**.
- **Structure:** It consists of a Chairperson, Judicial members and Expert Members
  - o Chairperson or Judicial Member of the Tribunal should be a Judge of the Supreme Court of India or Chief Justice of a High Court.
  - o These members are not eligible for reappointment
- **Powers of NGT**
  - o It has the power to **regulate its own procedure**.
  - o An order/decision/award of Tribunal is **executable as a decree of a civil court** and an appeal against the order/decision/award of the NGT can be filed in the **Supreme Court** (usually within 90 days).
  - o The Tribunal is **mandated to dispose applications or appeals within 6 months of filing**.
  - o NGT by an order, can provide-
    - ✓ relief and compensation to the victims of air pollution and different environmental damage,
    - ✓ restitution of property damaged
    - ✓ for restitution of the surroundings for such vicinity or areas
  - o **Penalty for not complying with the Tribunal's orders:** Upto 3 years imprisonment and/ or fine of Rs 10

crores for individuals (Rs 25 crores for companies)

- **Jurisdiction of NGT:** The NGT deals with civil cases under the seven laws related to the environment:
  - o The Water (Prevention and Control of Pollution) Act, 1974
  - o The Water (Prevention and Control of Pollution) Cess Act, 1977
  - o The Forest (Conservation) Act, 1980
  - o The Air (Prevention and Control of Pollution) Act, 1981
  - o The Environment (Protection) Act, 1986
  - o The Public Liability Insurance Act, 1991
  - o The Biological Diversity Act, 2002

### Achievements of NGT

- **Speedy environmental justice in environmental matters:** Since it began operations in July 2011 and till May, 2020, the NGT has heard 32,626 cases, of which 29,760 have been disposed off.
- **Strengthened the concept of Environmental Justice in India:** Over the years NGT has emerged as a vital player in environmental regulation, passing strict orders on issues ranging from pollution to deforestation, waste management to protection the rights of tribal communities.
- **Technical judgments:** NGT has employed legal and scientific methods and assessed environment impact assessment reports before deciding,
- **Created a new breed of legal practitioners** with expertise in environmental laws.

### Challenges/Issues associated with its functioning

- **Lack of institutional mechanism to ensure compliance of its orders:** or to re-work its orders if found infeasible to implement.
  - o Most of the landmark orders of the NGT related to Ganga water pollution, Delhi air pollution, illegal mining, and solid



waste management remain unenforced.

- **Generic orders:** Since July 2018, the Tribunal has disposed of over 700 cases, all at different stages of hearing, with directing the concerned authorities “to look into the matter and take appropriate action in accordance with law”.
- **Large number of dismissals:** Since 2018, the NGT dismissed many appeals filed before it, most of them on procedural grounds.
- **Restricted jurisdiction in case of forest rights:** Two important acts - Wildlife (Protection) Act, 1972 and Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 have been kept out of NGT’s jurisdiction.
- **Obstacle to development:** Decisions of NGT have additionally been criticised and challenged due to their repercussions on monetary growth and development.
- **Vacancies:** NGT only has three judicial and three expert members against the sanctioned strength of 10 each. This forces the tribunal to **outsource most of its technical work and constitute external committees** to look into various aspects of cases.
  - o This gives the impression that the NGT is abrogating its own jurisdiction on cases pertaining to environmental protection
- **Other issues-** Absence of a formula-based mechanism in determining the compensation, Restricted number of regional benches, **Prolonged litigation** due to the option of challenging orders of the NGT before the Supreme Court etc.

## Way forward

- Amendment to the NGT Act to give the tribunal powers to follow-up its directions and to establish a mechanism for enforcing its directions.
- NGT can provide specific reasons for dismissal of cases or appeals.
- Filling up vacancies in NGT, especially among expert members, to enable the tribunal to become self reliant while inspecting technical aspects of cases.

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Page No. 67  
Page No. 67



## World Energy Outlook, 2020

### In The News

Recently, International Energy Agency released World energy Outlook 2020 report

### More in News

- **World Energy Outlook**, the IEA's flagship publication, provides a comprehensive view of how the global energy system could develop in the coming decades.
- **International Energy Agency** is an **autonomous intergovernmental organization** established in the framework of **Organization for Economic Cooperation and Development (OECD)** in 1974 to help countries collectively respond to oil supply disruptions.
  - o It is **headquartered in Paris**.
  - o The framework was anchored in the IEA treaty called the “**Agreement on an International Energy Program**”.
  - o A candidate country to the IEA must be a member country of the OECD.
  - o The IEA family now represents about 75% of global energy consumption.
  - o **Members:** IEA is made up of 30 member countries and 8 association countries.
  - o India became an Associate Member in 2017.
  - o **Other Publications:** Global Energy & CO2 Status Report.

### Key findings

- **Impact of COVID 19:** Immediate effects of the pandemic on the energy system shows following expected declines in 2020:
  - o 5% in global energy demand,
  - o 7% in energy-related CO2 emissions and
  - o 18% in energy investment.
  - o 20% in oil consumption
- **Demand for renewable energy:** Renewables are less affected than other fuels by the pandemic and its aftermath. Renewables will meet 90% of the strong growth in global electricity demand over the next two decades, led by continued high

levels of solar PV deployment. By 2040, coal's share in global energy demand **dips below 20% for the first time** in modern energy history.

- **Structural fall in global coal demand:** Coal phase-out policies, the rise of renewables and competition from natural gas lead to the retirement of 275 gigawatts (GW) of coal-fired capacity worldwide by 2025 (13% of the 2019 total)
- **Oil Demand:** Rising incomes in emerging market and developing economies create strong underlying demand for mobility, offsetting reductions in oil use elsewhere.
- **Electricity grids:** There is a disparity in many countries between the spending required for smart, digital and flexible electricity networks and the revenues available to grid operators.
  - o Interconnected and complex nature of the electricity grid delivers several benefits including:
    - ✓ **Reliability:** Since the grid is an enormous network, electricity can be deployed to the right places across large regions of the country.
    - ✓ **Flexibility:** The electricity grid allows a power system to use a diversity of resources, even if they are located far away from where the power is needed.
    - ✓ **Economic competition:** Because the grid allows multiple generators and power plants to provide electricity to consumers, different generators compete with each other to provide electricity at the cheapest price.

### India's Energy Outlook

- **Electricity access:** Government has been supporting the expansion of distribution grid infrastructure across India to foster electricity access in villages.
  - o It provides budgetary support (grants) to state government DISCOMs under the

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Deendayal Upadhyaya Gram Jyoti Yojana (in rural areas), the Saubhagya scheme (last-mile connectivity to households) and the Integrated Power Development Scheme (IPDS) (in urban areas).

- **Cleaner energy:** India continues to promote cleaner cooking and off-grid electrification solutions, including a shift toward using solar photovoltaics (PV) for cooking and charging batteries.
- **Energy Affordability:** Government provides large-scale public subsidies to ensure access to electricity, energy and clean cooking for its population. Subsidies are designed for the purpose of social support and economic development.
  - o PAHAL, also known as the Direct Benefit Transfer of LPG scheme, sends the subsidy for the LPG purchased directly to a citizen's bank account.
- **Energy Efficiency:** Allowing private-sector investment in coal mining, opening country's oil and gas retail markets. And creation of functioning energy markets will ensure economic efficiency in the management of the coal, gas and power sectors.
  - o India is improving the energy efficiency of **buildings through mandatory building energy codes and voluntary rating schemes**, as well as through policies and programmes to improve the efficiency of appliances and equipment.
  - o The use of green bulk procurement (for instance of LED light bulbs) has helped accelerate energy savings.
- **Energy security:** India's electricity security has improved markedly through the creation of a single national power system and major investments in thermal and renewable capacity. To improve oil security, the government has also prioritised reducing oil imports, increasing domestic upstream activities, diversifying its sources of supply and increasing Indian investments in overseas oil fields in the Middle East and Africa.
- **Significant progress in sustainable**

**development:** India has made important progress towards meeting the United Nations Sustainable Development Goals, notably Goal 7 on delivering energy access. Both the energy and emission intensities of India's gross domestic product (GDP) have decreased by more than 20% over the past decade.

- o Government has embarked on an ambitious policy to boost renewable electricity, with a target of 175 GW capacity by 2022. Under its NDC, India targets a share of nonfossil-based capacity in the electricity mix of more than 40% by 2030 and a reduction in the emissions intensity of its GDP of 33-35% by 2030 over 2005. Recently the GoI has indicated ambitious new targets for renewables capacity in the region of 450 GW.
- o **Government has ruled out deploying new coal capacity up to 2027** (beyond plants still under construction) and aims to close the oldest most inefficient coal plants in the country.

## Challenges

- **Financial health of Power sector:** India faces the challenge of ensuring the financial health of its power sector which is dealing with surplus capacity, lower utilisation of coal and natural gas plants, and increasing shares of variable renewable energy.
- **Energy taxation and subsidies:** Subsidies on electricity creates a large financial burden on the GoI budget, notably at times of rising prices for energy commodity imports.
- **Increase in oil demand:** India's transport energy demand is growing rapidly. Oil products supplied 95% of total energy in the sector, mostly diesel and gasoline.
- **Coal continues to be the largest domestic source of energy supply** and electricity generation.
- **Number of policy makers:** Energy policy in India is conducted by a number of different ministries (ministry of power, ministry of renewable energy, ministry of oil and natural gas) that have responsibility for

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Printed March 2020  
Page 67/2020

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their sector.

## Way Forward

- **India's Energy Plan aims to ensure energy justice** (more energy for Indians) while fully following India's global commitments (smaller carbon foot-print) for sustainable growth.
- Government should adopt a national energy plan to **set a long-term framework for all stakeholders across the energy system**, which also identifies future energy infrastructure investment needs and provides an integrated approach.
- **Electricity and natural gas can be brought under the GST** to provide a level playing field between coal and gas.
  - o Electricity and natural gas remain outside of the GST.
- **Government should phase out indirect subsidies** to ensure that retail energy prices reflect the full costs of energy.
- **Develop a holistic strategy on renewable energy**, encompassing both supply and use, for electricity, heating and cooling as well as transport to fully harness India's large untapped potential.
- Creation of transparent and flexible markets for both oil and gas.

## Pollution By Sulphur Dioxide

### In The News

Recently, India's Sulphur dioxide (SO<sub>2</sub>) emissions have declined in 2019 as per the report analysis by Greenpeace India and the Centre for Research on Energy and Clean Air (CREA).

### Findings

- India's Sulphur dioxide (SO<sub>2</sub>) emissions have recorded a significant **decline of approximately 6% in 2019** as compared to 2018 for the first time in last 4 years.
- **India still occupies the top emitter's position** for the fifth consecutive year followed by Russia and China.
- **India emitted 21% of global anthropogenic (human-made) SO<sub>2</sub> emissions** — or about 5,953 kilotons a year, mostly from coal-fired power plants that lack pollution-curbing equipment.
  - The biggest **emission hotspots in India** are thermal power stations (or clusters of power stations) at Singrauli, Neyveli, Talcher etc.
- Greenpeace India has also released an analysis of NASA data which shows that **India has more than 15% of all anthropogenic SO<sub>2</sub> hotspots in the world** as detected by the OMI (Ozone Monitoring Instrument) satellite.

### About Sulphur Dioxide

- It is a **colorless, bad-smelling, toxic gas**, is part of a larger group of chemicals referred to as sulfur oxides (SO<sub>x</sub>).
- They are emitted by the burning of fossil fuels coal, oil, and diesel or other materials that contain sulfur. It is **also a natural byproduct** of volcanic activity.
  - Ex: **power plants, metals processing and smelting facilities, and vehicles.**
- It can create **secondary pollutants** once released into the air. Secondary pollutants formed with sulfur dioxide include sulfate aerosols, particulate matter, and acid rain.
- It increases the **risk of stroke, heart disease, lung cancer**, and premature death.

- Sulphur dioxide's **contribution to acid rain can cause direct harm to trees and plants** by damaging exposed tissues and, subsequently, decreasing plant growth.

### Steps taken in India

- Renewable energy capacity has been expanded and **coal dependency decreased.**
- Government has decided to **shut down non-compliant thermal power stations** and has also allocated Rs 4,400 crore to tackle the air pollution crisis.
- In 2015, the Ministry of Environment, Forest and Climate Change (MoEF&CC) introduced SO<sub>2</sub> emission limits for coal power stations.
  - The most efficient and easiest way to reduce their air pollution is to **install Flue-Gas Desulfurization (FGD) units.**
  - But power plants missed the initial deadline of December 2017 for the installation of FGD units.



## 2020 Nobel Prize In Physics

### In The News

**2020 Nobel Prize in physics** has been awarded to Roger Penrose, Reinhard Genzel and Andrea Ghez for furthering the **understanding of black holes**.

### Basics:

#### What are black holes?

A black hole is formed when stars collapse and can be defined as **a space in the universe with an escape velocity so strong that even light cannot escape it**.

- Escape velocity is the speed at which an object must travel to override a planet or an object's gravitational force.

#### Main features of blackholes:

- Since light cannot get out, black holes are invisible and can only be tracked with the help of a space telescope or other special tools.
- Light cannot escape from blackholes because the gravity inside a black hole is very strong as a result of a lot of matter being squeezed into a small space.

#### What do the award winners' work tell us about black holes?

- **Penrose:** Discovered “that black hole formation is a robust prediction of the general theory of relativity.”
- **Genzel and Ghez:** Discovered a “supermassive compact object at the centre of our galaxy.” This is now known to be **the Sagittarius A\* supermassive black hole**, which has a mass four million times that of the Sun and is confined to an area roughly the size of our Solar System.

#### Key points for Prelims:

- **Sagittarius A\*** is one of two black holes whose photographs have been captured by the **Event Horizon Telescope project**.
- Black holes do not emit or radiate anything, even light. So, there is no way

their image can be captured. But the area just outside its boundary, called **the event horizon**, which has vast amounts of gas, clouds and plasma swirling violently, does emit all kinds of radiations, even visible light.

### About Nobel Prize in Physics:

Awarded by the **Royal Swedish Academy of Sciences**.

It is **one of the five Nobel Prizes established by the will of Alfred Nobel** in 1895 and awarded since 1901.

The **first Nobel Prize in Physics** was awarded to physicist **Wilhelm Röntgen** in recognition of the extraordinary services he rendered by the discovery of X-rays.

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Page No. 72  
Page No. 72

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## What Is Holographic Imaging

### In The News

Scientists have developed a method using holographic imaging to detect both viruses and antibodies.

3. Medical.

4. Fraud and security: Eg- small silver rectangle of a dove on your credit card.

5. Art.

### How it is done?

1. The method uses laser beams to record holograms of their test beads.
2. The surfaces of the beads are activated with biochemical binding sites that attract either antibodies or virus particles, depending on the intended test.
3. Binding antibodies or viruses causes the beads to grow by a few billionth parts of a metre.
4. Scientists then can detect this growth through changes in the beads' holograms.

### Benefits of this method:

- The test could be done in under 30 minutes.
- It is highly accurate.
- It can be performed by minimally trained personnel.

### What is holography?

It is a process that **creates three-dimensional images** called **holograms**.

- This is done using **laser beams**, the properties of **interference and diffraction**, **light intensity recording**, and **illumination of the recording**.

The Hungarian-British physicist Dennis Gabor was awarded **the Nobel Prize in Physics in 1971** "for his invention and development of the holographic method".

### Uniqueness of holographic images:

The images created so change according to the relative position of the individual viewer as if the objects displayed are actually present.

### Potential applications:

1. Military mapping.
2. Information storage.

## Biofortification

### In The News

PM to dedicate to the Nation 17 recently developed biofortified varieties of 8 crops.

### Significance:

These varieties, along with other food ingredients, will transform the normal Indian thali into nutri-thali.

- These crops will have up to 3.0-fold increase in nutritional value.

### Basics:

#### What is biofortification?

It is the process of increasing nutritional value of food crops by increasing the density of vitamins and minerals in a crop **through either conventional plant breeding; agronomic practices or biotechnology.**

- Examples of these vitamins and minerals that can be increased through biofortification include provitamin A Carotenoids, zinc and iron.

#### How are crops fortified?

1. Conventional crop breeding techniques are used to identify varieties with particularly high concentration of desired nutrients.
2. These are cross-bred with varieties with other desirable traits from the target areas (such a virus resistance, drought tolerance, high yielding, taste) to develop biofortified varieties that have high levels of micronutrients (for example, vitamin A, iron or zinc), in addition to other traits desired by farmers and consumers.

#### What is Agronomic biofortification?

It entails application of minerals such as zinc or iron as foliar or soil applications, drawing on plant management, soil factors, and plant characteristics to get enhanced content of key micronutrients into the edible portion of the plant.

#### How does Biofortification differ from food fortification?

- **Biofortification** has the increased nutritional micronutrient content embedded in the crop being grown.
- **Food fortification** increases the nutritional value of foods by adding trace amounts of micronutrients to foods during processing.

## Monoclonal Antibodies (mAbs)

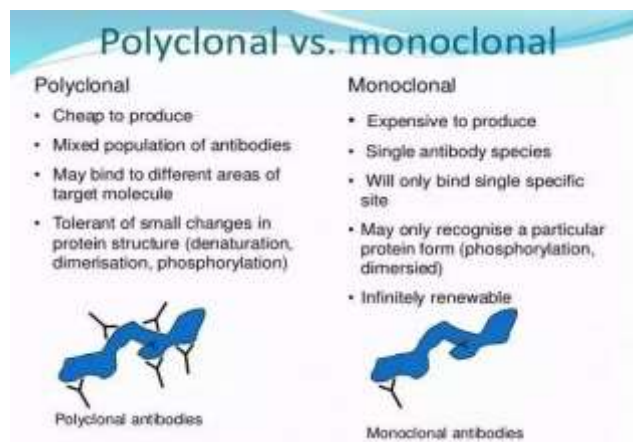
### In The News

Serum Institute of India (SII) and the International AIDS Vaccine Initiative (IAVI) have announced an agreement with pharmaceutical major Merck to develop SARS-CoV-2 neutralising monoclonal antibodies (mAbs).

### What are monoclonal antibodies (mAbs)?

They are **man-made proteins** that act like **human antibodies in the immune system**.

These antibodies are **co-invented by IAVI and Scripps Research** as ‘innovative interventions’ to address the COVID-19 pandemic.



## Plasma Therapy

### In The News

The **Indian Council of Medical Research (ICMR)** has been considering dropping the **plasma therapy** from the national guidelines as it found that **convalescent plasma was ineffective in arresting Covid-19**.

- In **China and Netherlands** too, the plasma therapy yielded very little or no results.

### What is plasma therapy?

Plasma is the liquid part of the blood. **Convalescent plasma**, extracted from the blood of patients recovering from an infection, is a **source of antibodies against the infection**.

The therapy involves using their plasma to help others recover.

- **For Covid-19**, this has been one of the treatment options. The donor would have to be a documented case of Covid- 19 and **healthy for 28 days since the last symptoms**.

### Way forward:

Covid care is **individualised care**. Use of the right drugs in the right patient does work. Experts say use of convalescent therapy has saved some lives but concerns have been raised by the **PLACID trial**.

Therefore, the potential harms of the non-immune components of convalescent plasma should be rigorously investigated, only donor plasma with detectable titers of neutralizing antibodies should be given to trial participants, to ensure that the potential for benefit exists for all intervention arm patients.

## Stockholm Convention on POPs

### Context:

Union Cabinet has approved the Ratification of **seven chemicals** listed under the **Stockholm Convention** on Persistent Organic Pollutants (POPs).

- The Cabinet has also delegated its **powers to ratify chemicals** under the Stockholm Convention to the Union Ministers of External Affairs (MEA) and Environment, Forest and Climate Change (MoEFCC) in respect of POPs already regulated under the domestic regulations.

### These are:

1. Chlordecone.
2. Hexabromobiphenyl.
3. Hexabromodiphenyl ether and Heptabromodiphenylether.
4. Tetrabromodiphenyl ether and Pentabromodiphenyl ether.
5. Pentachlorobenzene.
6. Hexabromocyclododecane.
7. Hexachlorobutadiene.

### Benefits for India:

The ratification process would enable India to access **Global Environment Facility (GEF)** financial resources in updating the National Implementation Plan (NIP).

### About Stockholm Convention on POPs:

Signed in 2001 and **effective from May 2004** (Ninety days after the ratification by at least 50 signatory states). Aims to **eliminate or restrict** the production and use of **persistent organic pollutants (POPs)**.

### What are POPs?

In 1995, the Governing Council of the United Nations Environment Programme (UNEP) called for global action to be taken on POPs, which it defined as “**chemical substances that persist in the environment, bio-accumulate through the food web, and pose a risk of causing adverse effects to human health and the environment**”.

### Uniqueness of POPs:

- POPs are **lipophilic**, which means that they accumulate in the fatty tissue of living animals and human beings.
- In fatty tissue**, the concentrations can become magnified by up to 70 000 times higher than the background levels.
- As you move up the food chain, concentrations of POPs tend to increase** so that animals at the top of the food chain such as fish, predatory birds, mammals, and humans tend to have the greatest concentrations of these chemicals.

### The 12 initial POPs under the Stockholm Convention:

Initially, twelve POPs have been recognized as causing adverse effects on humans and the ecosystem and these can be placed in 3 categories:

1. **Pesticides:** aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzene, mirex, toxaphene;
2. **Industrial chemicals:** hexachlorobenzene, polychlorinated biphenyls (PCBs); and
3. **By-products:** hexachlorobenzene; polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans (PCDD/PCDF), and PCBs.

Since then, additional substances such as carcinogenic polycyclic aromatic hydrocarbons (PAHs) and certain brominated flame-retardants, as well as organometallic compounds such as tributyltin (TBT) have been added to the list of Persistent Organic Pollutants.

### Sources of POPs:

- Improper use and/or disposal of agrochemicals and industrial chemicals.
- Elevated temperatures and combustion processes.
- Unwanted by-products of industrial processes or combustion.

### Is it legally binding?

Yes. **Article 16** of the Convention requires that effectiveness of the measures adopted by the



Convention is evaluated in regular intervals.

**Other Conventions dealing with POPs:**

Convention on Long-Range Transboundary Air Pollutants (LRTAP), Protocol on Persistent Organic Pollutants (POPs).

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Page No. 2020  
Page 78 2020

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## Tree Transplantation Policy

### Context:

Delhi Cabinet has given its nod for ‘Tree Transplantation Policy’. With this, Delhi has become **the first State in India to pass this policy**.

### Highlights of the policy:

- Agencies concerned will have to **transplant 80 per cent of the trees affected by their projects to a new location**.
- More importantly, 10 saplings will be planted in addition to the whole tree being dug up with the root intact and scientifically transplanted at another location instead of being felled.
- A dedicated **panel of government agencies** with track record and experience of tree transplantation is being formed under the policy.
- Payments for transplantation will be made after one year to ensure this, and if less than 80 per cent of the transplanted trees survive, payment will be deducted.
- The government will also form **local committees**, which will include citizens, for checking, monitoring and certification of the tree transplantation exercise.
- A dedicated **Tree Transplantation Cell** will also be formed by the Delhi government and local committees, which will include government officials, citizens to monitor the transplanted trees and to certify that the task has been done with due diligence.



## Fly Ash

### In The News

NTPC Ltd. under Ministry of Power, has started to collaborate with cement manufacturers across the country to supply fly ash as part of its endeavour to achieve 100% utilisation of the by-product produced during power generation.

### What is Fly Ash?

Popularly known as **Flue ash or pulverised fuel ash**, it is a coal combustion product.

### Composition:

Composed of the **particulates that are driven out of coal-fired boilers together with the flue gases**.

- Depending upon the source and composition of the coal being burned, the components of fly ash vary considerably, but **all fly ash includes substantial amounts of silicon dioxide (SiO<sub>2</sub>), aluminium oxide (Al<sub>2</sub>O<sub>3</sub>) and calcium oxide (CaO), the main mineral compounds in coal-bearing rock strata.**
- **Minor constituents include:** arsenic, beryllium, boron, cadmium, chromium, hexavalent chromium, cobalt, lead, manganese, mercury, molybdenum, selenium, strontium, thallium, and vanadium, along with very small concentrations of dioxins and PAH compounds. It also has unburnt carbon.

### Health and environmental hazards:

**Toxic heavy metals present:** All the heavy metals found in fly ash nickel, cadmium, arsenic, chromium, lead, etc—are toxic in nature. They are minute, poisonous particles accumulate in the respiratory tract, and cause gradual poisoning.

**Radiation:** For an equal amount of electricity generated, fly ash contains a hundred times more radiation than nuclear waste secured via dry cask or water storage.

**Water pollution:** The breaching of ash dykes and consequent ash spills occur frequently in India, polluting a large number of water bodies.

**Effects on environment:** The destruction of

mangroves, drastic reduction in crop yields, and the pollution of groundwater in the Rann of Kutch from the ash sludge of adjoining Coal power plants has been well documented.

**However, fly ash can be used in the following ways:**

1. Concrete production, as a substitute material for Portland cement, sand.
2. Fly-ash pellets which can replace normal aggregate in concrete mixture.
3. Embankments and other structural fills.
4. Cement clinker production – (as a substitute material for clay).
5. Stabilization of soft soils.
6. Road subbase construction.
7. As aggregate substitute material (e.g. for brick production).
8. Agricultural uses: soil amendment, fertilizer, cattle feeders, soil stabilization in stock feed yards, and agricultural stakes.
9. Loose application on rivers to melt ice.
10. Loose application on roads and parking lots for ice control.

## Project Snow Leopard

### In The News

International Snow Leopard Day was observed on **23 October**.

- The day came into being with the adoption of **the Bishkek Declaration** by 12 countries on the conservation of snow leopards.

### HimalSanrakshak:

On this day this year, the Indian government has launched **community volunteer programme “HimalSanrakshak”** to protect snow leopards.

### Snow Leopard conservation in India:

- India has been conserving snow leopard and its habitat through **the Project Snow Leopard (PSL)**.
- India is also party to **the Global Snow Leopard and Ecosystem Protection (GSLEP) Programme since 2013**.
- For conservation, India has identified **three large landscapes, namely**, Hemis-Spiti across Ladakh and Himachal Pradesh; Nanda Devi – Gangotri in Uttarakhand; and Khangchendzonga – Tawang across Sikkim and Arunachal Pradesh.
- **Project Snow Leopard (PSL)** was launched in 2009 to promote an inclusive and participatory approach to conserve snow leopards and their habitat.
- **Snow Leopard** is in the list of 21 critically endangered species for **the recovery programme of the Ministry of Environment Forest & Climate Change**.

## “The Human Cost of Disasters 2000-2019” Report

### In The News

Released recently by the **UN Office for Disaster Risk Reduction**.

### Key findings:

- **Climate change is largely to blame for a near doubling of natural disasters** in the past 20 years.
- 7,348 major disaster events had occurred between 2000 and 2019, affecting 4.2 billion people and costing the global economy some \$2.97 trillion.

### About UNISDR:

The United Nations Office for Disaster Risk Reduction (UNISDR), **created in December 1999**, is the successor to the secretariat of the **International Decade for Natural Disaster Reduction**.

- It was established to ensure the implementation of the **International Strategy for Disaster Reduction**.

### Functions:

UNISDR supports the implementation, follow-up and review of the **Sendai Framework for Disaster Risk Reduction** adopted by the Third UN World Conference on Disaster Risk Reduction on 18 March 2015 in Sendai, Japan.

**UNISDR’s vision is anchored on the four priorities for action set out in the Sendai Framework:**

1. Understanding disaster risk.
2. Strengthening disaster risk governance to manage disaster risk.
3. Investing in disaster risk reduction for resilience.
4. Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery,

rehabilitation and reconstruction.

### About Sendai Framework:

The “Sendai Framework for Disaster Risk Reduction 2015-2030” was adopted during the **Third UN World Conference on Disaster Risk**

**Reduction** held in Sendai, Japan in March, 2015.

- It is the first major agreement of the post-2015 development agenda, with seven targets and four priorities for action.
- It was endorsed by the UN General Assembly following the **2015 Third UN World Conference on Disaster Risk Reduction (WCDRR)**.

The Framework is the successor instrument to the **Hyogo Framework for Action (HFA) 2005-2015: Building the Resilience of Nations and Communities to Disasters**.



## Cyber Crime and Cyber Security in India

### In The News

**National Cyber Security Coordinator** Lt Gen (Dr) Rajesh Pant recently made the following observations on Cyber Crimes in India:

- Cyber-crimes in India caused Rs 1.25 trillion loss in 2019.
- Cyber threats will continue to increase as the country starts developing smart cities and rolling out 5G network, among other initiatives.
- There are only a few Indian companies who are making some of the cyber security products and there is a big vacuum in the sector.
- So, a dedicated industry forum for cyber security should be set up to develop trusted indigenous solutions to check cyber attacks.

6. **Formulation of Crisis Management Plan** for countering cyber attacks and cyber terrorism.

### What needs to be done ahead?

- Regularly issue alerts/advisories, l.
- Capacity building/training of law enforcement personnel/ prosecutors/ judicial officers.
- Improving cyber forensics facilities etc.
- Speed up investigation.

Finally, **‘Police’ and ‘Public Order’ are State subjects** as per the Constitution of India. States/UTs are primarily responsible for prevention, detection, investigation and prosecution of crimes through their law enforcement machinery.

### Steps taken by the Government to spread awareness about cyber crimes:

1. **Online cybercrime reporting portal** has been launched to enable complainants to report complaints pertaining to Child Pornography/Child Sexual Abuse Material, rape/gang rape imageries or sexually explicit content.
2. A scheme for establishment of **Indian Cyber Crime Coordination Centre (I4C)** has been established to handle issues related to cybercrime in the country in a comprehensive and coordinated manner.
3. Establishment of **National Critical Information Infrastructure Protection Centre (NCIIPC)** for protection of critical information infrastructure in the country.
4. All organizations providing digital services have been mandated to report cyber security incidents to

### CERT-In expeditiously.

5. **Cyber Swachhta Kendra** (Botnet Cleaning and Malware Analysis Centre) has been launched for providing detection of malicious programmes and free tools to remove such programmes.

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## PANDEMIC : NEW NORMAL

### In The News

The Pandemic has not only affected our socio-economic situation by creating a health crisis, but this changed situation has also altered our behavior in many ways. The long lockdowns, uncertainty about the future and fear of the virus has triggered individual and collective behavioral changes.

### What are the behavioral changes we have adopted?

As the pandemic has affected every aspect of our collective life, the behavior change needed and propagated by it spans across all dimensions-

- **Behavior in Public Places:**
  - People are now increasingly **desiring to avoid crowded areas and avoid physical contact.**
  - People **prefer to wear face mask when in public.**
- **Behavior at personal level:**
  - Recognition of importance of **personal hygiene**, e.g.- profound uptake in hand washing.
  - A section of people have been **exhibiting high level of generosity**, going out of their way to help people in need as they feel a sense of responsibility towards the society.
  - Unintentionally, many people have started associating virus to various communities and regions thus leading to **stigmatization** of those communities.
- **Economic behaviours:**
  - The coronavirus containment measures have **boosted digitization**, e.g.-growth in contactless and online payments.
  - **Discretionary spending has drastically decreased** in the National as well as Global economy.
- **Work behaviours**
  - A large section of people are **preferring to work from home**, taking help from the available digital communication tools.
  - Work from home has **blurred the lines between work and home**, with many

stating that they feel they are always at work thus **disturbing the prevalent work-life balance.**

### What are the motivations behind these behavioral changes?

- **Uncertainty and anxiety:** Absence of a clinical solution to pandemic, lack of knowledge and understanding about the virus and lack of clarity on when the pandemic will end has created a sense of uncertainty among people. Empirical studies show that humans as a species do not like uncertainty, this has forced people to think and thus change their behavior.
  - Further, the constant threat that the virus poses, creates fear within the person for oneself and also for the people around them.
- **Legal and Social obligation:** Stringent methods like lockdowns and punitive measures have been adopted to stop the spread of virus. Thus, behavioral change of a large section of the population has not internally changed but is externally changed to legal and social compulsions.
- **Other factors:** Individual and Collective behaviour is not solely guided by rational understanding. Other factors like **social norms, behaviour of role models** and most importantly, **acceptance among peers and family** plays an important role in shaping behaviour.

### What are learnings we can adopt from the current experience?

It is unlikely that the situation we are facing today will exactly repeat itself in the near future. But the ingredients which comprise the current situation may repeat in the future. For instance, the uncertainty created by the Pandemic can be similar to the uncertainty created in future due to adoption of a new technology. These learnings can help people in the uncertain times of the future.

- **Behaviour is more emotional than rational:** A person's health-related behaviours ultimately stem from the desire

to avoid illness. Thus, rationally one can argue that perceived benefits of the behaviour should be enough for its adoption but they remain inadequate. Cigarette sales, for example did not decline significantly for years despite the ills of smoking having been widely publicised.

- Emotional cues or triggers for a behaviour play a more important role changing behaviour. For instance-
  - Prime Minister’s call for a voluntary “Janata Curfew”, exhorting citizens to show that they care for themselves and their loved ones, and to display their patriotism was an emotive appeal blending fear, patriotism and gratitude.
- **Health is paramount:** In any crises, it is an asset if the populations are healthy, both mentally and physically. In this context, governments, organizations and people should make an effort to adopt healthy behaviours like personal hygiene, encouraging physical fitness and provide due recognition to mental well-being.
- **If ‘Work from home’ works, others may work too:** The pandemic forced both employers and employees to try work from home and break the inertia around the concept. It highlighted the benefits that it can give to both workers and business.
  - It brings a question, that there are several economic and social concepts that have not been tried on a large scale like ‘4-day week’, ‘24X7 economies’ among others. This forced experiment indicates that **more regular experimentation should be done** with lifestyles and the **current or default may not be the best.**
- **Importance of community:** Response to public health emergencies requires changes in regular behavioural patterns. Encouraging these changes requires coordination and an understanding of the culture and communities affected. The local community are in the best position to effectively enforce

an appropriate response.

- **Environmental Sustainability is not difficult:** The period of lockdown saw decreased carbon footprint at unprecedented level. This highlights that nature has huge potential for self-replenishment if conducive conditions are provided. Thus, the experience and learnings from the pandemic can alter the way we approach environmental sustainability making it more easier and effective.

## Conclusion: Never let a crisis go to waste

Studies suggest that almost 15% of the people during the pandemic will suffer from post-traumatic stress but at the same time it highlights that almost **50% will experience some kind of post-traumatic growth** in the form of heightened sense of personal growth or higher sense of gratitude for the post COVID-19 world. Thus, it is possible for us as a society to grow through the pandemic with a clear understanding of goals and having the right motivations for the future.

## PT POINTERS

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## Naturopathy

**Naturopathy** means ‘natural cure’. By using a combination of healthy diet, simple self-help techniques, for example, breathing and relaxation exercises, beneficial herbs and general exercise, naturopathy seeks to promote the body's own ability to heal itself.

- Naturopaths treat most long-term conditions. In this practice it is used to treat recurrent infections, long-term fatigue, anxiety and irritable bowel syndrome. It is also useful for allergic conditions, chronic muscle pain and chronic disease in general.

Government of India has declared **November 18 as Naturopathy Day** in commemoration of the commitment made by Mahatma Gandhi to Nature Cure on that day in 1945.

## BrahMos Missile

**In The News** Successfully flight tested. **Key points:**

- It is a surface-to-surface supersonic cruise missile featuring indigenous Booster and Airframe Section.
- It flies almost three times the speed of sound at Mach 2.8.
- The new BrahMos missile can strike targets over 400-km away with pin-point accuracy.

The missile was jointly developed by India and Russia and was first tested in 2001.

## Punjab waives vehicle tax for bus operators

The Punjab government has ordered **100% waiver on motor vehicle tax till December 31 for all stage carriage, mini and school buses**, while deferring payment of arrears of taxes, without interest and penalty, to March 31, 2021.

## WII to conduct study on Olive Ridley turtles

The Odisha government has requested the **Wildlife Institute of India (WII)** to conduct a fresh study for identifying the movement of **Olive Ridley sea turtles**, which would help the State renew its conservation efforts along its coast.

**Key facts:**

- The Olive ridley turtles are **the smallest and most abundant of all sea turtles found in the world.**
- They **inhabit warm waters of the Pacific, Atlantic and Indian oceans.**
- These turtles, along with their cousin the **Kemps ridley turtle,**

are best known for their unique mass nesting called **Arribada**, where thousands of females come together on the same beach to lay eggs.

**Rushikulya rookery coast** in the Ganjam district of Odisha, **Gahirmatha beach** and the mouth of the Debi River, are the major nesting sites in Odisha.

## Draft “Coastal Shipping Bill, 2020

Issued by the Ministry of Shipping. Highlights:

- The Bill has been drafted in lieu of part XIV of **the Merchant Shipping Act, 1958.**
- The definition of coastal shipping and coastal waters has been expanded.
- It is proposed to do away with **the requirement of trading licence for Indian flag vessels for coastal trade.**
- The Bill also proposes **integration of coastal maritime transport with inland waterways.**
- There is a provision for a **National Coastal and Inland Shipping Strategic Plan.**

## Meri Saheli

- Indian Railways has launched “Meri Saheli” initiative **for focused action on security of women** across all zones with an objective to provide safety and security to lady passengers travelling by trains for their entire journey from starting station to destination station.
- An initiative of RPF, the Strategy of the entails interaction with lady passengers especially those travelling alone **by a team of young lady RPF personnel at the originating station.**

## Places in News- Chile

- In a **referendum** held recently, People of Chile have voted overwhelmingly in favour of rewriting the country’s nearly four-decade-old constitution
- Chileans also voted to elect **an assembly of 155 members to draw up the new constitution.**
- The body will not include any active lawmakers to finalise the new document.

### Need for reforms:

The **existing charter was drafted during the rule of dictator and military leader Pinochet** without any popular inputs. The constitution was passed in a fraudulent plebiscite held in 1980, and has widely been blamed for the inequities that exist in Chilean society even today.

## Core Sector Industries

The **eight core sector industries include** coal, crude oil, natural gas, refinery products, fertiliser, steel, cement and electricity

- The eight core industries **comprise nearly 40% of the weight of items included in the Index of Industrial Production (IIP).**
- The eight **Core Industries in decreasing order of their weightage:** Refinery Products> Electricity> Steel> Coal> Crude Oil> Natural Gas> Cement> Fertilizers.

## Green Delhi

- It is an app launched by Delhi Government recently.
- It will involve citizen participation and ensure timely action in the government’s fight against pollution.
- The app enables citizens to register complaints, report pollution sources and violations of anti-pollution norms.
- Citizens can take photos, videos and audio of local causes of pollution such as garbage burning, industrial pollution and construction dust among others and upload on the app.

## Mutation

Mutation is the property of a virus to undergo changes when it multiplies. As it replicates, it may not produce exact replicas of itself, resulting in the emergence of new strains, which may be more or at times less effective. Some strains die out, while the more effective ones, which spread efficiently, survive.

### Why in News?

The coronavirus SARS-CoV-2 is constantly mutating. Until now, 12,000 mutations have been documented.

## Nagorno-Karabakh

### In The News

Territorial disputes and ethnic conflict between Armenia and Azerbaijan in Central Asia have impacted the Nagorno-Karabakh region in the South Caucasus.

### Where is it?

Nagorno-Karabakh, also known as **Artsakh**, is a landlocked region in **the South Caucasus**, within the mountainous range of **Karabakh**.

It is a disputed territory, **internationally recognized as part of Azerbaijan**, but mostly governed by **the Republic of Artsakh**, a de facto independent state.



## Atal Tunnel

### In The News:

Inaugurated recently.

### Key points:

- The Atal Tunnel at Rohtang is at an altitude of above 3,000 metres in Himachal Pradesh.
- The 9.02 km-long-tunnel, built by the Border Roads Organisation (BRO), is the world's longest highway tunnel and connects Manali to Lahaul-Spiti valley.
- The tunnel reduces the distance by 46 km between Manali and Leh and the travel time by about 4 to 5 hours.

## Xoo infection

- Caused by bacterium called Xoo (*Xanthomonas oryzae* pv. *oryzae*).
- It causes a serious bacterial leaf blight disease in rice.
- It causes huge yield losses to rice cultivation throughout the world.

## Two new plant species discovered in Western Ghats

1. *Eriocaulon parvicephalum* (due to its minute inflorescence size).
2. *Eriocaulon karaavalense* (named after Karaavali, Coastal Karnataka region).

**Pipeworts** (*Eriocaulon*) is a plant group which completes its life cycle within a small period during monsoon. Around 111 species of pipeworts are found in India.

- Most of these are reported from the Western Ghats and the eastern Himalayas, and around 70% of them are endemic to the country.
- They are known for its anti-cancerous, analgesic, anti-inflammatory, and astringent properties.

## SMART Missile

India has successfully flight-tested its indigenously developed Supersonic Missile Assisted Release of Torpedo (SMART) from a test range off Odisha coast.

- SMART is a missile assisted release of lightweight anti-submarine torpedo system for anti-submarine warfare (ASW) operations far beyond torpedo range.

## Daring Cities Conference 2020

### Context:

Delhi Chief Minister Arvind Kejriwal has been invited to speak at "Daring Cities 2020" virtual conference.

### Key points:

- The conference focuses on the steps taken in the national capital regarding sustainability and climate change issues.
- It is being hosted by ICLEI - Local Governments for Sustainability and Bonn city with the support of the German government.

"Daring Cities" is a global forum on climate change for urban leaders tackling climate emergency, especially in the context of COVID-19 pandemic.

## Wayanad-Kozhikode tunnel project launched

- The seven-km-long tunnel will connect Wayanad and Kozhikode districts.
- The ₹900-crore project will be constructed by Konkan Railway Corporation Ltd.



## HSRP

- They are made up of aluminium and are affixed using at least two non-reusable snap-on locks.
- The plate comprises hot-stamped chromium-based 20 mm X 20 mm hologram of Ashoka Chakra in blue colour on the top left corner.
- At the bottom left corner is a 10-digit permanent identification number (PIN) that is laser branded on the reflective sheeting.
- HSRP also includes a hot stamped film applied on the numerals and letters bearing the inscription "INDIA" at a 45-degree angle.
- Once affixed, the unique high security registration plate is electronically linked to the vehicle.

### Benefits:

- HSRP's come with non-removable snap-on locks and are difficult to replace.
- HSRP's are affixed by automobile dealers and private vendors approved by the state authorities.
- These plates are issued only after the vehicle owner provides with information like engine number, chassis number, etc. This is a crucial step in preventing counterfeiting of high security registration plates.
- The details of a car, like engine number, chassis number, etc. are stored in a centralized database. This information, along with the 10-digit PIN, helps the authorities to identify a stolen vehicle.
- HSRPs have a uniform pattern of displaying motor vehicle registration number, therefore addressing the issue of 'incomprehensible' vehicle registration plates.



## Gupkar Declaration

On August 4, 2019, first Gupkar declaration was signed before the abrogation of **Article 370**.

On August 22, 2020, the six political parties of Jammu and Kashmir signed a statement titled as '**Gupkar Declaration II**' to collectively fight against the abrogation of Article 370 in Jammu and Kashmir.

The six parties have jointly stated the Centre's decision to alter the special status of Jammu and Kashmir is 'grossly unconstitutional'.

## Wildlife week

Celebrated all over the country in the month of October from 2nd to 8th October every year with the view to preserve India's fauna.

- First conceptualised in 1952, the idea behind celebrating the Week is to take steps to save the animal species of India from extinction.
- Wildlife Day was observed from 1955 and it was upgraded to Wildlife Week in 1957.

**Theme for 2020:** RoaR (Roar and Revive) – Exploring Human-Animal Relationships.

## Abortelphusa Namdaphaensis

- It is a **new freshwater crab species** found recently on the edge of a small stream in Namdapha Tiger Reserve.
- The genus (**Abortelphusa**) is named after the **Abor Hills**, the species (**Namdaphaensis**) is named after **Namdapha**.
- Namdapha is known for its rich biodiversity, and believed to be the rare area that harbours **four large cats**: tigers, snow leopards, clouded leopards and leopards.



## India, Japan finalise text of pact for AI, 5G

India and Japan have welcomed the finalisation of the text of a **cybersecurity agreement**.

The agreement promotes cooperation in capacity building, research and development, security and resilience in the areas of Critical Information Infrastructure, 5G, Internet of Things (IoT), Artificial Intelligence (AI), among others.

## Gorkhaland Territorial Administration

- It is an **Autonomous District Council** for the Darjeeling and Kalimpong areas of the West Bengal state in India.
- It was formed as a result of tripartite agreement between the West Bengal government, the Centre and the Gorkha Janmukti Morcha (GJM) in 2011.
- The GTA was formed to replace the **Darjeeling Gorkha Hill Council**, which was formed in 1988 and administered the Darjeeling hills for 23 years.
- GTA presently consists of three hill subdivisions Darjeeling, Kurseong, Mirik, some areas of Siliguri subdivision of Darjeeling district and the whole of Kalimpong district under its authority.



## World Cotton Day

**Second World Cotton Day** was observed on **7th October 2020**.

The event is organised in collaboration with the Secretariats of the :

1. United Nations Food and Agriculture Organization (FAO)
2. The United Nations Conference on Trade and Development (UNCTAD)
3. The International Trade Centre (ITC) and the
4. International Cotton Advisory Committee (ICAC).

**Genesis:** This event stems from the **Cotton-4's** official application for the recognition of a World Cotton Day by the United Nations General Assembly.

- **Cotton- 4 Countries:** Benin, Burkina Faso, Chad and Mali.

### Key points:

- On the occasion, the Union Textiles Minister launched the first-ever brand and logo for Indian cotton.
- Now India's premium cotton would be known as '**Kasturi Cotton**' in the world cotton trade.
- The Kasturi Cotton brand will represent Whiteness, Brightness, Softness, Purity, Lustre, Uniqueness and Indianness.
- India is the **2nd largest cotton producer** and the **largest consumer of cotton in the world**.
- India produces about 6 million tons of cotton every year which is about 23% of the world cotton.
- India accounts for about 51% of the total organic cotton production of the world, which demonstrates
- India's effort towards sustainability.

Region/State	2019-20*	2018-19
All India	354.5	312.0
Gujarat	100.0	88.0
Maharashtra	80.0	70.0
Telangana	48.0	35.0
Rajasthan	29.0	28.0
Haryana	26.0	23.0
Karnataka	20.0	15.5
Madhya Pradesh	16.0	23.0
Andhra Pradesh	15.0	12.0
Punjab	10.5	8.5
Tamil Nadu	5.0	5.0
Others	5.0	4.0

