

**CURRENT EVENTS
AND
ANALYSIS
(December 2020)
PART-2**

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CURRENT EVENTS AND ANALYSIS

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NATIONAL POLITY

Regulatory Bodies:

NITI Aayog Recommends Single Self Regulatory Body for Online Fantasy Sports in India

- In December 2020, NITI Aayog, a Government of India's policy think tank, recommended the setting up of a single self-regulatory body for online fantasy sports (OFS) in India.

Present Problems in Regulation of Online Fantasy Sport Platforms:

- States are regulating the online fantasy sports in India.
- As a result, there is no uniformity in rules and regulations.
- Lack of uniformity in rules and regulations hinders the growth online fantasy sports industry.
- Formal recognition of the fantasy sports industry and providing for principle-led governance would enable Indian OFSP operators to focus on innovation and achieve scale and expand their operations in a clear and principle-based regulatory environment,"

How Regulation Varies Across States?

- Some states, like Assam, Orissa and Telangana, have made fantasy sports illegal.
- Tamil Nadu recently passed an ordinance that bans "online gaming" in the state, but doesn't explicitly mention fantasy sports platforms.
- On the other hand, Nagaland has explicitly recognized fantasy sports as games of skill.
- The Nagaland Act allows a host of online games, including chess, Sudoku, poker, rummy, virtual sports like cricket, football and fantasy sports league games, to be licenced and played.
- Sikkim gives a special license for gaming platforms to function in the state.
- Similarly, the Punjab & Haryana and Rajasthan High Courts have specifically passed rulings that recognize fantasy sports as games of skill.
- Supreme Court is yet to give its opinion on the matter.

Game of Skill Vs Game of Chance:

- 'Game of skill' is one which involves intelligence while 'Game of chance' is based on luck, for example playing cards, dice, spinning tops, roulette wheels, or numbered balls drawn from a container.
- Games of chance are banned in most states in India.
- Most games can be a combination of skill and chance, but skill has to be the predominant factor in these games to qualify as Game of Skill.

What is an Online Fantasy Sport?

- It is a game where participants create their own imaginary teams using real players from different teams scheduled to play in a league or a match, for example Indian Premier League (IPL).

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- Participants win or lose based on the real performance of the players in their fantasy team.
 - For instance, if an IPL match is scheduled between Mumbai Indians and Kolkata Knight Riders, daily fantasy sports participants get to select their own playing 11 from within the two squads.
 - Once the match starts, the users get points for their 11 players based on how they perform in the "real match". Points will be given for runs, wickets, catches etc.,
 - The organisers of fantasy sports which are mobile apps (applications) charge entry fee for participating in the fantasy contests and award prize money to the winners.
 - For instance, Dream11, which is a fantasy sports platform, keeps 15% of this amount as "platform fee" and the rest is distributed as prize money.
 - Dream 11 company generated revenues of Rs. 800 crore in 2018-19 financial year mainly through cricket fantasy games.

Why Online Fantasy Sports are Gaining Popularity?

- 1) Internet penetration in the country,
 - 2) Raising disposal incomes of middle class,
 - 3) Sport fans' passion for deeper engagement with the sport, and
 - 4) Supportive technological environment which is developing mobile apps and tapping the potential in fantasy games.
- Moreover, unlike most online games and betting, fantasy sports have been recognised as games of skill as they are based on actual statistical performance of players in real matches.
 - Punjab and Haryana High Court held that the fantasy sports games being offered by the operator (Dream 11) were 'games of skill' and did not constitute gambling.
 - Now, it's not cricket alone. With advent of multiple sporting leagues, fantasy sports is now widely played across **cricket, football, kabaddi and basketball.**

Significant Online Fantasy Sports Platforms in India:

- Till 2016, there were only 10 companies operating fantasy leagues in India with the most dominant player, Dream 11 holding almost 90% market share.
- Today, the number of operators in this segment stands at more than 140.
- New companies are continuously entering this field.
- Number of users participating in online fantasy sports in India has grown from 2 million users in 2016 to 100 million users in 2020.
- The growth in users of fantasy sports has translated into growth of revenues of the online fantasy sports industry.
- Their revenues increased from around Rs. 920 crore in the financial year 2018-2019 to Rs. **2470 crore in the financial year 2019-2020.**

Significance of Online Fantasy Sport Platforms?

Employment:

- Fantasy sports industry has generated over 3000-3400 jobs directly and indirectly through 100-200 ancillary companies that provide research, tutoring, and analytics services to fantasy sports users and coach them to draft their teams.
- The fantasy sports industry has the potential to generate an additional 5000+ direct and 7000+ indirect jobs in the next 2-3 years.

Foreign Direct Investment:

- Online fantasy sports in India have drawn over Rs. 1500 crore in investments from foreign investors over the past few years.
- Investment into fantasy sports has come from venture capital and private equity funds such as Kalaari Capital, Tiger Global Management, Think Investments, Kae Capital, Multiples Alternate Asset Management, etc.
- Fantasy sports industry has the potential to attract FDI of more than Rs. 10,000 crore over the next few years.

Tax Revenue to the Government:

- Fantasy sports industry has the potential to contribute Goods and Services Tax (GST) revenue of Rs. 3,000 crore to Rs. 3,500 crore over the next 5 years.
- Income tax on winnings and corporate tax paid by fantasy sports operators is expected to contribute between Rs. 7,000 crore to Rs. 10,000 crore over the next 5 years.

Advertising Revenue to Industry:

- Online Fantasy sports industry has generated more than Rs. 250 crore of revenue for the advertising industry and estimates this figure to rise to Rs. 2000 crore over the next few years.

Negative Impact of Online Fantasy Sports:

- It is likely to promote **addiction among the users**.
- Users may see these sports as income generating activity.
- But, there are **financial risks** as not all users win money and due to addiction the users may continue spending money on fantasy games.

Recommendations of NITI Aayog:

- A single self-regulatory organisation for the fantasy sports industry should be recognised by the government.
- Such self-regulatory body should be a single-purpose fantasy sports industry body and have membership of online fantasy sports platforms (OFSPs) operators.
- Fantasy sports contests should not be offered to users who are less than 18 years old.
- Fantasy sports operators should provide a grievance redressal mechanism for the redressal of users complaints.

Regulation of Advertising Fantasy Sports:

- Advertising and promotion of fantasy sports contests, including any endorsement or participant comments used by the operator for advertisements or promotions should be fair and truthful.
- They should remain in compliance with the existing advertising standard of the Advertising Standards Council of India (ASCI).
- Advertisements should not **represent or imply that winnings in a contest are 'assured' or 'guaranteed'**. Fantasy sports should be projected as amusement and fan engagement activity.
- Advertisements should also **not represent that the participation in fantasy sports is a source of sustenance, a means of earning a livelihood, a lottery, a jackpot or an investment opportunity**.

Ministry of Information and Broadcasting Issues Advisory:

- In December 2020, the Ministry of Information and Broadcasting has issued an advisory asking all private television broadcasters to follow guidelines issued by the Advertising Standards Council of India (ASCI) for advertisements relating to online gaming, fantasy sports.
- It stated that a large number of advertisements on Online Gaming, Fantasy Sports, etc have been appearing on the television which appear to be misleading, do not correctly convey to the customers the financial and other risks associated.
- ASCI guidelines require that every such gaming advertisement must carry the following disclaimer:
- "This game involves an element of financial risk and may be addictive. Please play responsibly and at your own risk".
- Such a disclaimer should occupy at least 20% of the advertisement space.
- Gaming advertisements cannot depict users under the age of 18 years as engaged in playing a game of "online gaming for real money winnings" or suggest that such users can play these games.
- The advertisements should neither suggest that online gaming presents an income generating opportunity as an alternative to employment nor depict a person playing such games is more successful than others.

About Advertising Standards Council of India:

- The Advertising Standards Council of India was established in 1985.
- It is self-regulatory voluntary organization of the advertising industry in India. It is based in Mumbai.
- It seeks to ensure that advertisements conform to its Code for Self-Regulation.
- Under the Cable Television Networks (Regulation) Act, 1995 it is mandatory for television networks to follow the advertising code laid down by ASCI.

Fundamental Rights:

CCTVs Must in Offices of CBI, ED, Police Stations: Supreme Court

- On December 3, 2020, ordered for installation of CCTV (Closed-circuit television) cameras with audio-recording facility installed in the offices of Central Bureau of Investigation (CBI), Enforcement Directorate (ED), the National Investigation Agency (NIA), Narcotics Control Bureau (NCB), Department of Revenue Intelligence (DRI), Serious Fraud Investigation Office (SFIO) and all such agencies.

Background:

- In 2018, the Supreme Court ordered installation of CCTV cameras in police stations across the country to **check human rights abuses** by **police** and prevent custodial torture and deaths.
- Many incidents of custodial torture by police and custodial deaths were reported.
- CCTVs enable surveillance of police conduct as their conduct in video recorded.
- For this purpose, all states were required to constitute independent committees that could study CCTV camera footages and periodically publish reports of its observations.
- The Supreme Court had also asked the Central government to a set up a Central Oversight Body (COB) and **provide necessary funds** so that it could issue necessary directions to states and union territories to facilitate videography of the crime scenes and compliance with other directions of the apex court.
- In 2020, the Supreme Court evaluated the progress made by the states.
- It noted severe deficiencies in complying with its judgment across the board.
- The court sought assistance of attorney general KK Venugopal and appointed senior advocate Siddhartha Dave as amicus curiae (friend of the court).
- After receiving suggestions from Venugopal and Dave, the Supreme Court expanded the ambit of its order and included central agencies too.

Directions:

- The Supreme Court stated that **not only police stations but all the other agencies, which have the power to make arrests and interrogate**, must also have CCTVs installed in their premises.
- Therefore, the Supreme Court ordered for installation of CCTV (Closed-circuit television) cameras with audio-recording facility installed in the offices of Central Bureau of Investigation (CBI), Enforcement Directorate (ED), the National Investigation Agency (NIA), Narcotics Control Bureau (NCB), Department of Revenue Intelligence (DRI), Serious Fraud Investigation Office (SFIO).
- It stated that as **most of these agencies carry out interrogation in their office(s), CCTVs shall be compulsorily installed** in all offices **where such interrogation and holding of accused takes place in the same manner as it would in a police station.**

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- Besides, the court order made **Station House Officer (SHO) of each police station responsible for upkeep and maintenance of CCTV cameras.**
 - The **cameras need to be installed** at all entry and exit points, main gate of the police station, all lock-ups, reception area, officials' rooms, and station hall.
 - The court has directed the states to make sure that **good quality cameras with high resolution, night vision and a recording retention facility for at least a year** are purchased and installed immediately in all police stations.
 - It added that a State Level Oversight Committee, comprising secretary or additional secretary from home and finance departments, director general of police or inspector general of police and a member of the state women's commission, must also be constituted to make certain the court's directions are duly complied with, besides taking care of **budgetary allocations and supervision at the state level.**
 - Similarly, **District Level Oversight Committees**, consisting of the district magistrate, a superintendent of police and a municipality mayor, will be set up in all districts to interact with the SHOs for upkeep of CCTVs and review the footage for any human right violation.
 - The Supreme Court orders the Centre and States to file their compliance affidavit with details of cameras installed, exact timeline of completing the remaining installations and constitution of oversight committees.

Persons of Influence Should Be More Responsible in Exercising Freedom of Speech: Supreme Court

- In a verdict delivered on December 7, 2020, a two judge bench of the Supreme Court stated that persons of influence owe a duty and have to be more responsible while exercising the right to free speech **keeping in view their reach, impact and authority they yield on the general public.**

Background:

- Multiple First Information Reports (FIRs) were filed (in many states like Telangana, Rajasthan, Madhya Pradesh) on Journalist Amish Devgan who is also the Managing Director of TV18 for his alleged defamatory remarks against Sufi saint Khwaja Moinuddin Chisti in a TV Show. He described Khwaja Moinuddin Chisti as a terrorist and robber who through fear and intimidation coerced many Hindus to embrace Islam.
- Khwaja Moinuddin is a Sufi saint from Muslim community but is revered even by the Hindus.
- The FIRs stated that the comments by Journalist Amish Devgan incited religious hatred towards Muslims.
- Journalist Amish Devgan filed a plea in Supreme Court pleading for quashing of FIRs registered against him. He also expressed regret for his comments and stated that these comments were made inadvertently and were meant to refer Allauddin Khilji. He issued a clarification and an apology through his twitter account.

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- The **Supreme Court refused to quash** the several FIRs of hate speech registered against him stating that persons of influence owe a duty and have to be more responsible while exercising the right to free speech.

Details of the Judgement of the Supreme Court:

1. 'Persons of influence' and Their Responsibilities:

A speech by 'a person of influence' such as a **top government or executive functionary, Opposition leader, political or social leader of following, or a credible anchor on a TV show carries a far more credibility and impact than a statement made by a common person** on the street.

Hence, keeping in view their reach, **impact and authority they yield on general public or the specific class to which they belong, Persons of influence owe a duty and have to be more responsible.**

They are expected to know and perceive the meaning conveyed by the words spoken or written, including the possible meaning that is likely to be conveyed. **With experience and knowledge, they are expected to have a higher level of communication skills.**

Unlike a common man driven by anger, emotions, wrong perceptions or misinformation, it is only reasonable to expect that these "persons of influence" are careful in using the words that convey their intent. They **owe a duty to society to choose their words and not slip into hate speech.**

The impact of hate speech depended on the person who uttered the words.

2. Hate Speech Repudiates Right to Equality:

In a **polity committed to pluralism, hate speech cannot conceivably contribute in any legitimate way to democracy** and, in fact, **repudiates the right to equality.**

(Hate speech refers to utterances that incite violence, hatred, or discrimination against people on the basis of their collective identity, be it race, ethnicity, religion, gender or sexuality. **Hate speech attacks two key tenets of a democratic republic: the guarantee of equal dignity to all, and the public good of inclusiveness).**

3. Difference Between Free Speech and Hate Speech:

The judgement distinguished the fundamental right of free speech from the criminal offence of hate speech. Free speech includes the right to criticise government policies while hate speech focuses on creating and spreading hatred against a targeted group.

4. Hate Speech Criminalised to Protect the Dignity of Individual:

The **purpose of criminalising hate speech** was to protect the **dignity of the individual.**

5. Dignity of Individual and Unity and Integrity of the Nation are Linked:

Dignity of individual and unity and integrity of the nation are also linked, one in the form of rights of individuals and other in the form of individual's obligation to others to ensure unity and integrity of the nation.

Human Freedom Index:

India Ranked 111 out of 162 Countries in 'Human Freedom Index 2020'

India was ranked 111th out of 162 countries in the 'Human Freedom Index 2020' released in December 2020 by Cato Institute in the United States and Fraser Institute in Canada. It used data from 2008 to 2018.

Top 5 Countries in the Index:

Rank	Country
1.	New Zealand
2.	Switzerland
3.	Hong Kong
4.	Denmark
5.	Australia

Bottom 5 Countries in the Index:

Rank	Country
158	Iran
159	Yemen
160	Venezuela
161	Sudan
162	Syria

Criteria for the Index:

The index covered 76 indicators of personal, civic and economic freedom.

Some of the indicators covered are civil liberties - freedom of speech, religion, association, and assembly - indicators on rule of law, crime and violence, freedom of movement, and legal discrimination against same sex relationships and economic freedoms such as the property rights, freedom to trade, credit market regulation, labour market regulations, business regulation, etc.

Ranking of India and Its Neighbours:

Country	Rank
Nepal	92
Sri Lanka	94
Bhutan	108
India	111
China	129
Bangladesh	139
Pakistan	140
Myanmar	146

SOCIAL SECTOR

HEALTH:

Non Communicable Diseases:

Non Communicable Diseases Account for 7 of the World's Top 10 Causes of Death : WHO

- Noncommunicable diseases now make up 7 of the world's top 10 causes of death, according to World Health Organisation's (WHO) '2019 Global Health Estimates', published on December 9, 2020.
- This is an increase from 4 of the 10 leading causes in 2000.

What are Noncommunicable Diseases?

- Communicable diseases transmit from person-to-person through the transfer of a pathogen such as bacteria, viruses, fungi or parasites.
- Noncommunicable diseases cannot be transmitted through a pathogen. They are caused by a combination of genetic, physiological, environmental and behaviours factors.
- Examples of Noncommunicable diseases are **cardiovascular diseases (heart attacks and stroke), cancers, respiratory diseases, diabetes**, etc.

Highlights of '2019 Global Health Estimates' of WHO:

Heart Disease:

- Heart disease has remained the leading cause of death at the global level for the last 20 years.
- However, it is now killing more people than ever before.
- The number of deaths from heart disease increased by more than 2 million since 2000, to nearly 9 million in 2019.
- Heart disease now represents 16% of total deaths from all causes.
- More than half of the 2 million additional deaths were in the WHO Western Pacific region. Conversely, the European region has seen a relative decline in heart disease, with deaths falling by 15%.

Alzheimer's disease:

- Alzheimer's disease and other forms of dementia are now among the top 10 causes of death worldwide, ranking 3rd in both the Americas and Europe in 2019.

Alzheimer's disease is a progressive disease in which brain cells degenerate gradually leading to memory loss and impairs mental functions. Age-related changes in the brain, along with genetic, environmental, and lifestyle factors cause Alzheimer's disease.

Dementia is a general term for loss of memory, language, problem-solving and other thinking abilities. Alzheimer's is the most common cause of dementia. But not everyone with dementia has Alzheimer's disease.

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- **Women are disproportionately affected:** globally, 65% of deaths from Alzheimer's and other forms of dementia are women.

Diabetes:

- Deaths from diabetes increased by 70% globally between 2000 and 2019, with an 80% rise in deaths among males.
- In the Eastern Mediterranean, deaths from diabetes have more than doubled and represent the greatest percentage increase of all WHO regions.

Conclusion from the Findings:

- There is need to rapidly step up prevention, diagnosis and treatment of noncommunicable diseases particularly cardiovascular diseases, cancer, diabetes and chronic respiratory diseases.

Communicable Diseases:

- There is global decline in deaths from communicable diseases, but still a major challenge in low- and middle-income countries.

Respiratory Infections:

- In 2019, **pneumonia and other lower respiratory infections were the deadliest group of communicable diseases** and together ranked as the fourth leading cause of death.
- However, compared to 2000, lower respiratory infections were claiming fewer lives than in the past, with the global number of deaths decreasing by nearly half a million.
- This reduction is in line with a general global decline in the percentage of deaths caused by communicable diseases.

HIV/AIDS:

- HIV/AIDS dropped from the 8th leading cause of death in 2000 to the 19th in 2019.
- The decline reflects the success of efforts to prevent infection, test for the virus and treat the disease over the last two decades.
- While it remains the **fourth leading cause of death in Africa, the number of deaths has dropped by more than half**, falling from over 1 million in 2000 to 435 000 in 2019 in Africa.

Tuberculosis:

- **Tuberculosis** is also **no longer in the global top 10**, falling from 7th place in 2000 to thirteenth in 2019, with a 30% reduction in global deaths.
- **Yet, it remains among the top 10 causes of deaths in** the African and South-East Asian regions, where it is the 8th and 5th leading cause respectively.
- Africa saw an increase in tuberculosis mortality after 2000, though this has started to decline in the last few years.
- Communicable diseases still take a high toll in low-income countries: 6 of the top 10 causes of death in low-income countries are still communicable diseases, including malaria (6th), tuberculosis (8th) and HIV/AIDS (9th).

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- Overall, there is slow-down or plateauing of progress against infectious diseases like HIV, tuberculosis and malaria.

Longevity (Duration of Life):

- **People are living longer - but with more disability**
- People were living more than 6 years longer than in 2000
- **The global average life expectancy is more than 73 years in 2019** compared to nearly 67 in 2000. But on average, only 5 of those additional years were lived in good health.

Disability:

- **Disability is on the rise.**
- To a large extent, the diseases and health conditions that are causing the most deaths are those that are responsible for the greatest number of healthy life-years lost.
- **Heart disease, diabetes, stroke, lung cancer and chronic obstructive pulmonary disease** were collectively responsible for nearly 100 million additional healthy life-years lost in 2019 compared to 2000.

Injuries:

- **Injuries are another major cause of disability and death:** there has been a significant rise in road traffic injuries in the African region since 2000, with an almost 50% increase in both death and healthy life-years lost.
- **Globally, deaths from road traffic injuries are 75% male.**

Drug Use:

- **In the Americas, drug use has emerged as a significant contributor to both disability and death.**
- There was a nearly threefold increase in deaths from drug use disorders in the Americas between 2000 and 2019.
- This region is also the only one for which drug use disorder is a top 10 contributor to healthy life-years lost due to premature deaths and disability.

Immunisation:

India's First Indigenously Developed Vaccine Against Pneumococcal Disease, 'Pneumosil' Launched

- India's first indigenously developed vaccine against pneumococcal disease, 'Pneumosil' was launched by Dr Harsh Vardhan, Union Minister for Health and Family Welfare on December 28, 2020.

Pneumococcal Disease:

- Pneumococcal disease is a name for **any infection caused by bacteria called *Streptococcus pneumoniae* or pneumococcus.**

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- People can be infected with the bacteria, or they can carry it in their throat without showing any symptoms. These carriers can still spread it, primarily in droplets from their nose or mouth when they breathe, cough, or sneeze.
 - Streptococcus pneumoniae bacteria, or pneumococcus, can cause many types of illnesses. Some of these illnesses can be life threatening.
- 1) Pneumonia (infection of the lungs).
(Many different bacteria, viruses, and even fungi can cause pneumonia. But, pneumococcus is one of the most common causes of severe pneumonia).
 - 2) Ear infections (Otitis media)
 - 3) Sinus infections
 - 4) Meningitis (infection of the tissue covering the brain and spinal cord)
 - 5) Bacteremia (bloodstream infection).
 - 6) Sepsis (inflammation of various tissues and organs in the body due to excessive response body's immune system to infection in bloodstream).

Who are at Risk?

- Pneumococcal disease is common in young children, but older adults are at greatest risk of serious illness and death. Vaccines are the best way to prevent pneumococcal disease.

Impact of Pneumococcal Disease:

- Pneumococcal disease is a significant contributor to the under-five mortality rate worldwide.
- It is estimated to cause nearly four lakh deaths in children under five years of age each year worldwide.
- In view of its widespread fatality, the World Health Organization in 2018 recommended the inclusion of the pneumococcal conjugate vaccine (PCV) in routine childhood immunisation programmes in all countries.
- In India, nearly 67,800 children under 5 years of age die every year from pneumococcal diseases.
- Recognizing its widespread fatality, the World Health Organisation (WHO) recommends the inclusion of Pneumococcal Conjugate Vaccine (PCV) in routine childhood immunization programmes in all countries. As different variants of bacteria are targeted through the vaccine, it is called conjugate vaccine.

Need for Indigenous Vaccine:

- Till now we are fully dependent on Pneumococcal Conjugate Vaccine manufactured by Foreign Manufacturers which are available at very high prices.
- Pneumococcal conjugate vaccine is imported and sold in India by Pfizer and GSK.
- While the Pfizer vaccine Prevenar 13 is sold at Rs 3,801 per dose, GSK vaccine Synflorix is sold at Rs 2,195 per dose, making them the costliest vaccine in the child immunisation schedule.

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- **Prevener 13** provides protection against 13 variants of pneumococcus bacteria compared to 10 of Synflorix.
 - The high cost of the vaccine had the Indian government delay the inclusion of PCV in the universal immunisation programme (UIP), meant to vaccinate children free of cost. It was introduced in select states like Bihar, Himachal Pradesh, Madhya Pradesh, 19 districts of Uttar Pradesh and 18 districts of Rajasthan.
 - The launch of SII's affordable Pneumococcal Conjugate Vaccine (PCV) will allow the Indian government to introduce this vaccine throughout the country.
 - Pneumosil has been priced at \$3 per dose (Rs. 220) for public market (Government), and little over \$10 per dose (Rs. 730) for private market.
 - The company has begun shipping the vaccine to UNICEF, for supplying to child immunisation programmes in various low and middle income countries.
 - Pneumosil has been developed through a collaboration spanning over a decade among SII, PATH, an international, non profit global health organization, and Bill and Melinda Gates Foundation.

About Serum Institute:

- The Serum Institute of India was set by Dr. Cyrus Poonawalla in 1966.
- It is the world's largest vaccine manufacturer by doses.
- Serum Institute's vaccines are used in 170 countries.
- Every third child in the world is immunized with the Serum Institute's vaccine.

Family Planning:

Cannot Force Couples into Family Planning: Government Tells Supreme Court

- On December 12, 2020, the Centre told the Supreme Court that it was **against coercing couples into having a "certain number of children" in a bid to curb population explosion.**

Background:

- A Public Interest Litigation (PIL) was filed by advocate Ashwini Kumar Upadhyay in Supreme Court **seeking a direction to Central Government to introduce a population control law.**
- Mr. Upadhyay said **population explosion had been the bane of the country.**
- In his petition, he also stated that population explosion is more dangerous than bomb explosion and without implementing effective population control measures, Healthy India, Literate India, Prosperous India, Resourceful India, Strong India, Secure India, Clean India and Corruption and Crime-Free India campaign won't succeed.

Government's Stand:

Government stated that it is against coercive action to curb population explosion due to following reasons.

1) Voluntary Programme:

The Family Welfare Programme in India is **voluntary in nature**.

It enables couples to decide the size of their family and adopt the family planning methods, best suited to them, according to their choice, without any compulsion.

2) International Obligations:

India is also a **signatory** to the **Programme Of Action (POA) of the International Conference on Population and Development, 1994**, which was unequivocally against coercion in family planning.

3) International Experience:

International experience shows that any coercion to have a certain number of children is **counter-productive and leads to demographic distortions**.

4) Declining Total Fertility Rate:

India had also been witnessing a "constant decline" in the Total Fertility Rate (TFR).

Total Fertility Rate (TFR) which was 3.2 at the time when National Population Policy 2000 was adopted has declined substantially to 2.2 as per Sample Registration System of 2018.

Also, as many as 25 out of 36 States/UTs have already achieved the replacement level fertility of 2.1 or less.

Total Fertility Rate:

The total fertility rate in a specific year is defined as the total number of children that would be born to each woman if she were to live to the end of her child-bearing years and give birth to children in alignment with the prevailing age-specific fertility rates.

5) Declining Decadal Growth:

2001-2011 decade witnessed sharpest decline in decadal growth rate (17.64%) in India in the last 100 years.

6) Policy Guidance:

There was also the National Health Policy (NHP) 2017 which provided for a policy guidance.

The NHP set out target of achievement of Total Fertility Rate (TFR) of 2.1 by 2025.

Family Health Survey:

National Family Health Survey-5 Phase-1 Results Released

- Key indicators of the first phase National Family Health Survey (NFHS-5) were released on December 12, 2020 by Dr. Harsh Vardhan, Union Minister of Health and Family Welfare. The first phase covered 22 Phase-I States/Union Territories (UTs).
- (These 22 Phase-I States/UTs are Andhra Pradesh, Assam, Bihar, Goa, Gujarat, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Telangana, Tripura, West Bengal, Andaman Nicobar Island, Dadra and Nagar Haveli and Daman and Diu, Jammu & Kashmir, Ladakh and Lakshadweep. The fieldwork in the remaining 14 (Phase-II) States/UTs is currently under progress).

Objective of NFHS:

- The main objective of National Family Health Survey (NFHS) is to provide reliable and comparable datasets on health, family welfare and other emerging issues.

Earlier Rounds:

- Four rounds of National Family Health Survey (1992-93, 1998-99, 2005-06 and 2015-16) have been successfully completed in India.
- The fifth phase of National Family Health Survey (NFHS) is being conducted for the period 2019-20.
- All the rounds of NFHS have been conducted by the International Institute for Population Sciences (IIPS), Mumbai, as the national nodal agency.

Highlights of First Phase of NFHS 5:

Total Fertility Rates (TFR):

- The Total Fertility Rates (TFR) has further declined since NFHS-4 (2015-16) in almost all the Phase-1 States and UTs.
- The replacement level of fertility (2.1) has been achieved in 19 out of the 22 States/UTs.
- Only 3 states viz. Manipur (2.2), Meghalaya (2.9) and Bihar (3.0) have Total Fertility Rate (TFR) above replacement levels now.

Contraceptive Prevalence Rate (CPR):

- Overall Contraceptive Prevalence Rate (CPR) has increased substantially in most States/UTs and it is the highest in HP and WB (74%). Use of modern methods of contraception has also increased in almost all States/UTs.

Immunization:

- Full immunization drive among children aged 12-23 months has recorded substantial improvement across States/UTs/districts.
- More than two-third of children are fully immunized in all the States and UTs except Nagaland, Meghalaya and Assam.
- In almost three-fourths of districts, 70% or more children aged 12-23 months are fully immunized against childhood diseases.

Institutional Births:

- Institutional births have increased substantially with over four-fifth of the women delivering in institutions in 19 States and UTs.
- Institutional delivery is over 90 per cent in 14 out of the total 22 States and UTs.
- Almost 91% of districts recorded over 70% institutional deliveries of births in the 5 years preceding the survey.
- Along with an increase in institutional births, there has also been **a substantial increase in C-section deliveries** in many States/UTs **especially in private health facilities**.

Sex Ratio:

- Sex ratio at birth has remained unchanged or increased in most States/UTs.
- Majority of the states are in normal sex ratio of 952 or above.
- Sex Ratio at Birth (SRB) is **below 900 in Telangana, Himachal Pradesh, Goa, Dadra and Nagar Haveli (DNH) & Daman & Diu.**

Nutrition Status:

- Anaemia among women and children continues to be a cause of concern.
- More than half of the children and women are anaemic in 13 of the 22 States/UTs.
- Anaemia among pregnant women has increased in half of the States/UTs compared to NFHS-4,

Sanitation:

- The percentage of households with improved sanitation facility and clean fuel for cooking has increased in almost all the 22 States/UTs over the last four years (from 2015-16 to 2019-20).
- The Government of India has made concerted efforts to provide toilet facilities to maximum households through Swachh Bharat Mission, and improved household environment through Pradhan Mantri Ujjwala Yojana in the country.
- For instance, the use of cooking fuel has increased more than 10 percentage point in all the States and UTs during the last 4 years with over 25 percentage point increase in states of Karnataka and Telangana.

INTERNATIONAL POLITY**USA:****USA Imposes Sanctions on Turkey for Buying S-400 Missile Systems from Russia**

- On December 14, 2020, the United States of America (USA) imposed sanctions on Turkey for its purchase of Russia's S-400 missile defence system.
- The sanctions have been imposed by USA under the Countering America's Adversaries Through Sanctions Act (CAATSA)
- Turkey is procuring S-400 missile systems under a USD 2.5 billion deal with Russia.

What is S-400 missile defence system?

- The S-400 is a surface-to-air missile systems developed by Russia.
- It is an upgrade of the S-300 family of surface-to-air missile systems.
- It is capable of engaging aerial threats, including aircraft, unmanned aerial vehicles (UAV), as well as ballistic and cruise missiles.
- The air defence system has a range of up to 400 km.

Why is U.S.A against Purchase of S 400 Missile Defence System by Turkey from Russia:

- S-400 system would
- endanger the security of U.S. military technology and personnel, and
- provide substantial funds to Russia's defense sector.
- In multiple efforts to deter Turkey from buying the S-400, USA also offered to sell the country Raytheon's Patriot missile system to Russia.
- Turkey nevertheless decided to move ahead with the procurement and testing of the S-400 due to **following reasons.**
- Compared with U.S. systems, the Russian-made S-400 is capable of engaging a wider array of targets, at longer ranges and against multiple threats simultaneously.
- In 2017, Turkish President Recep Erdogan brokered a deal reportedly worth \$2.5 billion with Russian President Vladimir Putin for the S-400 missile system.
- As a result, U.S. removed Turkey from its F-35 jet program under which it partners with for manufacturing F-35 fighter jets (Turkey is also a major buyer of F-35 fighter jets) over **concerns that sensitive information could be accessed by Russia if Turkey used Russian systems along with U.S. jets.**
- However, Turkey went ahead and accepted the first of four missiles in July 2019. Since then USA was actively considering imposing sanctions under CATSA which were finally imposed in December 2020.

What Does Sanctions on Turkey Cover?

- Sanctions were imposed on Turkey's main defence procurement agency the Presidency of Defense Industries (SSB) for engaging in a significant transaction with Rosoboronexport (ROE), Russia's main arms export entity.
- These SSB sanctions comprise of
 - a) ban on granting specific U.S. export licenses and authorisations for any goods or technology,
 - b) ban on loans or credits by U.S. financial institutions totalling more than \$10 million in any 12-month period,
 - c) ban on U.S. Export-Import Bank assistance for exports.
 - d) U.S.A would also oppose loans by international financial organisations to SSB.
 - e) Additionally, sanctions will include visa restrictions on SSB president Ismail Demir and other officials.

Sanctions Imposed on Close Ally for the First Time:

- This is the first time USA imposed sanctions under CATSA on a close ally. Turkey is part of **North Atlantic Treaty Organisation (NATO)** and has decades long close defence and military cooperation with USA.

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- NATO's essential and enduring purpose is to safeguard the freedom and security of all its members by political and military means.
 - NATO is an intergovernmental military alliance between 30 European and North American countries formed in 1949 to provide collective security against the threat posed by the Soviet Union

Significance of Sanctions for India:

- India is also buying S-400 missile defence system from Russia.
- In October 2018, India signed a \$5.4 billion deal with Russia to procure **five units of S-400 missile systems** despite a warning from the Trump administration that going ahead with the contract may invite US sanctions.
- The deliveries are expected to be completed within a five-year period.
- In 2019, India made the first tranche of payment of around USD 800 million to Russia for the missile systems.
- There are speculations that India may face US sanctions for purchasing the Russian air defence system.
- But some lawmakers from both parties who favour a close U.S.-India relationship, are making a strong case waiver from sanctions under CAATSA for countries like India (and also Vietnam and Indonesia), which had historically bought Russian arms but were now buying more U.S. arms.

CATSA Waiver:

- Countries can get waiver from sanctions under CATSA if U.S. President certifies that the waiver is
- in the U.S.'s national security interest,
- the entity (country) in question was reducing its reliance on Russian weapons and
- it was cooperating with the U.S. on security matters critical to America's security interests.

Sanctions on Russia:

- In 2017, United States imposed sanctions against Russia for its interference in the 2016 U.S. elections, its military aggression against Ukraine, including the annexation of Crimea, as well as for human rights violations.
- Section 231 of the law provides for secondary sanctions on persons that engage in "significant transactions" with Russian defence and intelligence sectors. In September 2018, the U.S. invoked secondary CAATSA sanctions on a Chinese military department and its head for the purchase of 10 SU-35 Russian combat aircraft in 2017 and S-400 equipment in 2018.

U.S. President Signs Tibetan Policy and Support Act of 2020

- On December 28, 2020, the then United States President Donald Trump signed the Tibetan Policy and Support Act of 2020 which was passed by House of Representatives and Senate. The 2020 Act modifies and re-authorises various programmes and provisions related to Tibet.

Main Features of the Tibetan Policy and Support Act 2020:

1) Special U.S. Coordinator on Tibet:

The law authorised the Office of the U.S. Special Coordinator for Tibetan Issues.

It expanded the office's duties to include additional tasks, such as pursuing international coalitions to ensure that the next Dalai Lama is appointed solely by the Tibetan Buddhist faith community.

US \$1 million per annum would be provided every year from 2021 to 2025 for the Special U.S. Coordinator on Tibet.

2) Condition for Opening of New China Consulates in U.S.:

No new Chinese consulate in the U.S. would be allowed to be opened unless China allows the opening of an American consulate in Lhasa.

3) Assistance to Tibetan Autonomous Region and Communities in China:

US \$8 million assistance would be provided every year from 2021 to 2025 for the Tibetan Autonomous Region and Communities in China.

4) Assistance to Tibetans living in India:

Similarly US \$6 million would be provided every year from 2021 to 2025 for Tibetans living in India, US \$3 million would be provided every year from 2021 to 2025 for Tibetan governance.

5) Scholarship for Tibetan Students:

US \$675,000 would be spent on scholarship for Tibetan students every year from 2021 to 2025.

U.S. would also build an international coalition to ensure that the next Dalai Lama (15th) is appointed solely by the Tibetan Buddhist community without China's interference.

Why Does China Control the Tibetans?

- Beijing views the 14th Dalai Lama as a "separatist" working to split Tibet from China.
- Chinese government's claims **that only the Chinese government has the ultimate authority in the selection process of the Dalai Lama.**
- However, since 2011, the 14th Dalai Lama has reiterated publicly on numerous occasions that decisions on the successions, emanations, or reincarnations of the Dalai Lama belongs to the Tibetan Buddhist faith community alone.

What is the Stand of the U.S. ?

- The U.S. also strongly opines that Chinese Government interference in the Tibetan reincarnation process is a violation of the internationally recognized right to religious freedom.
- U.S. highlights the fact that other countries like India besides China have long Tibetan Buddhist traditions and that matters related to reincarnations in Tibetan Buddhism are of keen interest to Tibetan Buddhist populations worldwide.

Who is a Dalai Lama?

- Dalai Lama is a Mongolian word which means highest spiritual guru (head monk) of Tibetan Buddhism.
- The institution of the Dalai Lama is a relatively recent one.
- There have been only 14 Dalai Lamas in the history of Tibetan Buddhism.
- The Dalai Lama traditionally has been responsible for the governing of Tibet, until the Chinese government took control in 1959. Before 1959, his official residence was Patola Palace in Lhasa, the capital of Tibet.
- The 14th Dalai Lama, Tenzin Gyatso, now 85, has been living in India ever since he fled Tibet in 1959 following a Chinese crackdown on an uprising by the local population. The Tibetan government-in-exile operates from Dharmasala in Himachal Pradesh.
- Over 1,00,000 Tibetans live in India.

About Tibet:

- Tibet was independent region before 1950. In 1950, China invaded Tibet and asserted sovereignty over Tibet.
- But in March 1959, Tibetans took to the streets demanding an end to Chinese rule. Chinese People's Republic troops crushed the revolt and thousands were killed.
- The Dalai Lama fled from Tibet to India with thousands of followers during the 1959 Tibetan uprising. The then Indian Prime Minister, Mr. Jawaharlal Nehru gave him permission to form the 'Tibetan government in exile' in Dharamsala.
- Many Tibetans also fled as refugees to Nepal, and Bhutan during the conflict.

Present Status of Tibet:

- At present, the People's Republic of China (PRC) claims that Tibet is an integral part of China. It is being run as Autonomous Region. The Tibetan government-in-exile under the 14th Dalai Lama maintains that Tibet is an independent state under unlawful occupation.
- 14th Dalai Lama has set up Central Tibetan Administration (CTA) in Mussoorie in 1959. It was shifted to Dharmasala in 1960.
- It has assumed responsibility for rehabilitating Tibetan refugees. It runs schools, health centres for refugees in India and Nepal.
- The source of funds for the administration are private donations collected with the help of organisations like the Tibet Fund, and aid from governments like India and the US.

Nobel Prize for 14th Dalai Lama:

- In 1989, 14th Dalai Lama, Tenzin Gyatso, received the Nobel Peace Prize for maintaining a policy of non-violence with the Chinese government.

How is the Dalai Lama chosen

- The Dalai Lama is found rather than chosen.

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- Following the Buddhist belief in the principle of reincarnation, the Dalai Lama is believed by Buddhists to be able to choose the body into which he is reincarnated. That person, when found, will then become the next Dalai Lama.
 - The search for the reborn Dalai Lama is the responsibility of the High Lamas of the Gelgupa tradition and the Tibetan government.
 - This process can take several years: it took four years to find the 14th (current) Dalai Lama, Tensin Gyatso. The search is generally limited to Tibet, although the current Dalai Lama has said that there is a chance that he will not be reborn, and that if he is, it will not be in a country under Chinese rule.

Brexit:

United Kingdom and European Union Reach Post Brexit Agreement

- The United Kingdom (consisting of England, Wales, Scotland, and Northern Ireland) formally withdrew from the European Union (EU) on January 31, 2020 and entered an 11-month transition period i.e. until 31 December 2020.
- The 11-month transition period during which the UK and the European Union were supposed to negotiate the nature of their post-Brexit economic relationship will come to an end on December 31, 2020.
- The transition period was meant to negotiate key aspects of UK-EU relationship - including a trade agreement, defence, security and immigration once the transition phase ended.
- In December 2020, UK and EU entered into post-Brexit trade agreement which came into effect on January 1, 2021. (Brexit is the term used for Britain's exit from European Union).

Main Features of the Agreement:

Trade:

- United Kingdom is no longer part of European Union common market and customs union.
- But, EU and UK agreed to allow free movement of goods i.e. without tariffs and without any quotas.
- Now, Britain has freedom to enter into trade agreements with other countries which was not possible as part of European Union.

Fishing Rights:

- Though fishing accounts for small percentage of trade it was emotive and political issue in United Kingdom. UK wanted complete control over fishing in its territorial waters while at present all EU countries have fishing rights.
- Under the agreement, European Union countries will continue to have fishing rights in United Kingdom's water for five and half years i.e. until June 2026.

Movement of People:

- Ending freedom of movement was a key issue for Brexiteers in the U.K.'s 2016 EU referendum and that has been achieved by this deal.

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- EU nationals will no longer be able to live and work in Britain without visas - though that does not apply to the more than 3 million already doing so. Similarly, Britons can no longer automatically work or retire in EU nations.

Services Trade:

- The agreement does not cover services trade.
- As the services sector accounts for about 80% of the U.K.'s economy and more than 40 percent of the U.K.'s exports to the EU are services, the fallout from leaving it outside the purview of the new accord will be hard for UK.

State Aid:

- State aid proved very contentious during the negotiations. Under the state aid, UK extends grants, tax breaks to businesses. EU opines that State aid gives competitive advantage to UK industries.
- EU was keen to ensure the U.K. could not use subsidies to allow British business to undercut the bloc and the U.K. determined to set its own rules. U.K. agreed to create a body to oversee its own subsidy control regime.

Impact of Brexit on UK:

- Leaving EU could cost a potential GDP loss of 4 per cent according to The Organisation for Economic Co-operation and Development (OECD).
- But, UK opines that gaining sovereignty over policy making and checking immigration from EU are more important for it.
- As part of EU, UK ceded law making powers in many areas like agriculture, environment, immigration, labour, competition, etc to the European Union. Unchecked immigration due to free movement of people from EU into UK also put pressure on social services like education and healthcare besides reducing quality employment opportunities for UK citizens.

Brief Background of EU and EU-UK Relationship:

- European Union (EU) was set up after the Second World War to **build a peaceful, united and prosperous Europe** by **forging closer economic and political partnership**.
- Initially, six founding countries France, Germany, Belgium, Italy, Luxembourg and the Netherlands, set up European Coal and Steel Community to foster economic cooperation. In 1957, the Treaty of Rome created the European Economic Community (EEC), or 'Common Market.'
- United Kingdom joined the 'Common Market' in 1973 along with Denmark and Ireland. This 'Common Market' became **European Union under the 'The Maastricht Treaty' signed in 1993. Under the 'Maastricht Treaty'**
- At present, there is free movement of goods, services, investments and people in the European Union (EU).
- Member countries also have common policies on more than 40 areas like foreign policy, security policy and policies governing other areas like agriculture, environment, immigration, justice, etc.

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- EU had 28 Member Countries. With the withdrawal of UK, at present EU has 27 Member countries.

Why U.K Left European Union?

There are two major reasons for UK opting for Brexit.

- 1) **Unsustainable influx of immigrants into UK** and
- 2) **erosion of UK's sovereignty due to expansion of EU law making powers**

Immigrants:

- EU **started expanding in 2004 to include mostly post-communist countries in central and Eastern Europe** which are relatively poor. This led to influx immigrants into Britain. The UK absorbed 3,33,000 new people in 2015 i.e. an year before referendum in 2016.
- Flood of immigrants from Southern and Eastern Europe **depressed the wages** of native-born British workers.
- Immigrants also put **pressure on social infrastructure** such as health, education and housing.

U.K Sovereignty:

- Political intelligentsia hold the view that **EU is becoming a threat to the sovereignty of British parliament.**
- A series of EU treaties have shifted the law making power from individual member states to EU parliament. On subjects where the EU has been granted authority like competition policy, agriculture, and copyright and patent law, EU rules override national laws.

Referendum:

- Due to above problems, a referendum was held on June 23, 2016, to decide whether the **United Kingdom** should 'Leave' or 'Remain' in the European Union (EU).
- 52 per cent voted for 'Leave' option and 48 per cent voted for 'Remain' option.
- During the referendum, the term 'Brexit' became popular. It referred to exit of Britain from European Union. The word comes by merging the words **Britain** and **exit** to get **Brexit**.
- Since, the majority of people favoured exit from E.U, the U.K Government initiated the process of leaving European Union which became a reality on January 31, 2020.

United Nations:

United Nations Body Removes Cannabis from List of Dangerous Narcotics, India Votes In Favour of Removal

- On December 2, 2020, the United Nations Commission on Narcotic Drugs voted to remove Cannabis and cannabis resin from list of dangerous narcotics following the recommendation of the World Health Organisation (WHO).
- Out of 53 member countries in the Commission on Narcotic Drugs, 27 countries voted in favour of removal which include United States of America, many European countries and

India. 25 countries voted against removal of Cannabis and cannabis resin from list of dangerous narcotics which include China, Pakistan, and Russia. Ukraine abstained from voting.

- United Nations Commission on Narcotic Drugs was set up in 1964.
- It decides on the scope of control of narcotic substances by placing them in the schedules of global drug control conventions.

What is Cannabis?

- According to the World Health Organisation (WHO), cannabis is a generic term used to denote the several psychoactive preparations of the plant **Cannabis sativa**.
- The major psychoactive constituent in cannabis is **Delta-9 tetrahydrocannabinol (THC)**.
- The Mexican name '**marijuana**' is frequently used in many countries in referring to cannabis leaves or other crude plant material.

Uses of Cannabis?

Medical Purpose:

- In some countries it is prescribed for treating mental illnesses like anxiety and depression.
- It is also used in treatment of cancer. The drugs based on cannabis leaves relieve the pain and other symptoms after in cancer patients after chemotherapy and radiotherapy.

Recreation Purpose:

- It is used for recreation as it is intoxicating. Its consumption gives a feeling of high (happy and excited state of mind) to its consumers.

India Votes in Favour of Removal:

- India also voted in favour of removal cannabis from list of dangerous narcotics.

Regulation in India:

- Cannabis is not allowed for recreation purpose.
- It is allowed for medical research.
- But, cultivation of cannabis is illegal in India.
- Under India's Narcotic Drugs and Psychotropic Substances (NDPS) Act, 1985, the production, manufacture, possession, sale, purchase, transport, and use of cannabis is a punishable offence.
- However, in view of its use in medical research, the Indian Government, in 1997, gave license to Indian Institute of Integrative Medicine which is under Council for Scientific and Industrial Research (CSIR) to grow it on single acre of land in Jammu and Kashmir.

Global Approach:

- Global attitudes towards cannabis have changed dramatically since the listing of Cannabis and cannabis resin as dangerous narcotic United Nations Commission on Narcotic Drugs in 1961.
- Many countries permit cannabis use for recreation, medication or both.

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- Currently, over **50 countries allow use cannabis for medicinal uses.**
 - Its **recreational use** has been legalised in **Canada, Uruguay and 15 US states.**

Significance of the Decision:

- The decision to remove Cannabis and cannabis resin from list of dangerous narcotics can drive additional scientific research into its medicinal uses.
- The decision may also act as a catalyst for countries to legalise cannabis drugs for medical use.

FOREIGN RELATIONS

Indo-Vietnam:

India Vietnam Virtual Summit

- India Vietnam virtual summit attended by Prime Minister of Vietnam Nguyen Xuan Phuc, and Prime Minister Narendra Modi was held on December 21, 2020. Both the countries signed agreements for cooperation in defence, atomic energy, solar energy, healthcare, etc.

Details:

Security Partnership:

- Both the Leaders agreed that **enhanced defence and security partnership** between India and Vietnam will be an important factor of stability in the Indo-Pacific region.
- In this regard, both sides agreed to step up their military-to-military exchanges, training and capacity building programmes across the three services and coast guards and intensify their defence industry collaboration building on India's defence credit lines extended to Vietnam.
- Both sides also will engage more closely through **institutionalised dialogue mechanisms** in dealing with traditional and non-traditional security threats in cyber and maritime domains, terrorism, natural disasters, health security, water security, transnational crimes etc, including through enhanced legal and judicial cooperation, where required.

Trade:

- Both the Leaders stated that they would strive to achieve the **target of US \$15 billion of trade turnover at the earliest.**
- They agreed to **facilitate long-term investments in each other's economy, promote joint ventures, engaging in new global value chains** and mutually provide greater market access for each others' goods.

Energy Cooperation:

- Both the countries will partner in **new and renewable energy resources, energy conservation and other climate-resilient technologies.**
- Both the countries will further **strengthen their long-standing partnership in the oil and gas sector**, including through possible exploration projects in third countries and collaboration in downstream projects.

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- Both sides will strengthen cooperation in **adaptation to climate change**.
 - India stated that it looks forward to Vietnam's joining the **Coalition for Disaster Resilient Infrastructure** in the near future.

People to People Contacts:

- Both the Leaders agreed to promote closer people-to-people exchanges by increasing direct flights, providing ease of travelling through simplified visa procedures and facilitating tourism.
- They also agreed to further strengthen and institutionalise linkages such as Parliamentary exchanges; relations between Indian States and Vietnamese Provinces; exchanges between political parties, social organisations, friendship groups and youth organisations; collaboration between educational and academic institutions; engagement between think tanks; joint research programmes; educational scholarships; and exchanges in media, film, TV shows and sports.

Additional Information:

About Coalition for Disaster Resilient Infrastructure

- Resilience is the ability of a system, community or society exposed to hazards to absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner.
- Prime Minister of India, Narendra Modi, launched the Coalition for Disaster-Resilient Infrastructure (CDRI) at the UN Secretary-General's Climate Action Summit in New York, US in 2019.
- The CDRI aims at enabling **knowledge exchange, technical support and capacity building**.
- The fledgling partnership has a secretariat in Delhi and supported by the UN Office for Disaster Risk Reduction (UNDRR).

CDRI's mission is to

- 1) rapidly expand the development of resilient infrastructure,
- 2) retrofit existing infrastructure for resilience, and
- 3) enable a measurable reduction in infrastructure losses.

Why?

- In recent weather and climate-related disasters, up to 66% of public sector losses were related to infrastructure damage.
- UN Office for Disaster Risk Reduction (UNDRR) estimates that around US \$ 94 trillion will be needed for investment in **sustainable and resilient infrastructure** in the next 20 years and that 60% of this investment will take place in developing countries.
- The CDRI partnership will be working in the areas of governance and policy, emerging technology, risk identification and estimation, recovery and reconstruction, resilience standards and certification, finance, and capacity development.

Members countries:

- At present, CDRI has following as member countries.
- Afghanistan, Argentina, Australia, Bhutan, Chile, Fiji, France, Germany, India, Italy, Japan, Maldives, Mauritius, Mongolia, Nepal, Peru, Sri Lanka, Turkey, United Kingdom (UK), United States of America (USA).

Indo-Bangladesh:

India Bangladesh Virtual Summit

- India Bangladesh virtual summit attended by Prime Minister of Bangladesh Sheikh Hasina, and Prime Minister Narendra Modi was held on December 17, 2020.
- Both the countries signed agreements for cooperation in hydrocarbon sector, agriculture, solid waste management, trans-boundary elephant conservation, and implementation of High Impact Community Development Projects (HICDPs) in Bangladesh with Indian grant assistance.

Both the countries decided to

- delineate boundaries and complete fencing of pending sectors along the international border,
- conclude agreement in the area of disaster management cooperation.
- expeditiously conclude the ongoing joint study on the prospects of entering into a bilateral **Comprehensive Economic Partnership Agreement (CEPA)**,
- increase connectivity through early operationalisation of the Bangladesh, Bhutan, India, and Nepal (BBIN) Motor Vehicles Agreement through expeditious signing of the enabling agreement,
- enhance cooperation in energy efficiency and clean energy, including in biofuels, and
- continue working together towards achieving early reforms of the UN Security Council, combating climate change, attainment of the Sustainable Development Goals (SDGs) and protection of the rights of migrants.

Bangladesh Prime Minister

- expressed keen interest in the ongoing **India Myanmar Thailand trilateral highway project** and sought support of India for enabling Bangladesh to connect with this project,
- highlighted the need for early signing of interim agreement for sharing of the Teesta waters,
- sought India's assistance at the United Nations in the repatriation of the forcibly displaced Rohingyas back to Myanmar,
- thanked the Indian Prime Minister for proposing creation of the SAARC Emergency Response Fund to counter effects of the global pandemics in the South Asian region, and
- reiterated the proposal for establishment of a SAARC Medical and Public Health Research Institute and sought support in this regard.

Prime Minister Narendra Modi

- requested Bangladesh to allow connectivity from West Bengal (Hilli) to Meghalaya (Mahendraganj) via Bangladesh,
- thanked Prime Minister Sheikh Hasina for supporting India in its election to the United Nations Security Council, and
- Invited Bangladesh to join **New Development Bank, an initiative of BRICS (Bangladesh, Russia, India, China, and South Africa)**.

Details:

Border Management and Security Cooperation

- Both the Leaders agreed to hold an early meeting to prepare a new set of strip maps along the stretch of Icchamati, Kalindi, Raimongol and the Hariabhanga Rivers to finalize the delineation of the boundaries.
- They also agreed to carry out necessary work to **convert the International Boundary along Kuhsiyara river** into a fixed boundary.
- Both leaders agreed to **complete border fencing at all pending sectors at the international border** between both the countries at the earliest beginning from the Tripura (India)- Bangladesh sector.

Disaster Management:

- Noting that Bangladesh and India were prone to frequent natural disasters, the two leaders directed officials on both sides to expeditiously conclude the agreement in the area of disaster management cooperation.

Terrorism:

- Recognising that terrorism remains a threat to global peace and security, both sides reiterated their strong commitment to eliminating terrorism in all its forms and manifestations.

Trade:

- Prime Minister Sheikh Hasina appreciated the Duty Free and Quota Free access given to Bangladeshi exports to India under **South Asian Free Trade Agreement (SAFTA) since 2011**.
- Both Prime Ministers emphasised on addressing issues of non-tariff barriers and trade facilitation including port restrictions, procedural bottlenecks and quarantine restrictions so that both countries can take full advantage of SAFTA flexibility.
- Recognising the immense potential of bilateral economic and commercial ties, both Prime Ministers directed the officials to expeditiously conclude the ongoing joint study on the prospects of entering into a bilateral **Comprehensive Economic Partnership Agreement (CEPA)**.

Connectivity:

- The two Prime Ministers noted with satisfaction the continued progress made towards the restoration of pre-1965 railway linkages between both nations.
- They **jointly inaugurated the newly restored railway link between Haldibari (India) and Chilahati (Bangladesh)** and noted that this rail link will further strengthen trade and people to people ties between the two sides.
- To facilitate better connectivity and simplify movement of passengers and goods between both the countries, both leaders agreed to an early operationalisation of the **Bangladesh, Bhutan, India, and Nepal (BBIN) Motor Vehicles Agreement** through expeditious signing of the enabling agreement.

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- Bangladesh Prime Minister expressed keen interest in the ongoing India Myanmar Thailand trilateral highway project and sought support of India for enabling Bangladesh to connect with this project with a view to enhance connectivity between the regions of South and South East Asia.
 - In the same spirit, India requested Bangladesh to allow connectivity from West Bengal (Hilli) to Meghalaya (Mahendraganj) via Bangladesh.

Cooperation in Water Resources, Power and Energy:

- Prime Minister Sheikh Hasina **highlighted** the need for **early signing of interim agreement for sharing of the Teesta waters**, as agreed upon by both the governments in 2011. Prime Minister Narendra Modi reiterated India's sincere commitment and continued efforts of the Government of India in that regard.
- The two leaders **underscored the need for early conclusion of Framework of Interim Agreement on sharing of waters of six joint rivers**, namely, **Manu, Muhuri, Khowai, Gumti, Dharla and Dudhkumar**.
- Both the Leaders **agreed to enhance cooperation in energy efficiency and clean energy, including in biofuels**.
- In line with commitment of both countries to move towards green, clean, and renewable sources of energy, it was agreed to strengthen sub regional cooperation including with Nepal and Bhutan.

Rohingyas Displacement:

- Prime Minister Narendra Modi **appreciated the generosity of Bangladesh in sheltering and providing humanitarian assistance to the 1.1 million forcibly displaced persons from the Rakhine State of Myanmar**. Both Prime Ministers reiterated the importance of their safe, speedy and sustainable return
- Prime Minister Sheikh Hasina congratulated India on its election as a member of the United Nations Security Council. She sought India's assistance at the United Nations in the repatriation of the forcibly displaced Rohingyas back to Myanmar.

UN Reforms and Sustainable Development Goals:

- Prime Minister Narendra Modi thanked Prime Minister Sheikh Hasina for supporting India in its election to the United Nations Security Council. Both countries agreed to continue working together towards achieving early reforms of the UN Security Council, combating climate change, attainment of the Sustainable Development Goals (SDGs) and protection of the rights of migrants.
- Both Prime Ministers reaffirmed the need for developed countries to fulfill their commitments under the Global Partnership for ensuring the means of implementation of the SDGs as enshrined in the Agenda 2030.
- Prime Minister Narendra Modi thanked Prime Minister Sheikh Hasina for supporting India in its election to the United Nations Security Council. Both countries agreed to continue working together towards achieving **early reforms of the UN Security Council, combating climate**

change, attainment of the Sustainable Development Goals (SDGs) and protection of the rights of migrants.

- Both Prime Ministers reaffirmed the need for developed countries to fulfill their commitments under the Global Partnership for ensuring the means of implementation of the SDGs as enshrined in the Agenda 2030.

Importance of Regional Organisations:

- Both leaders highlighted that given the regional and global economic scenarios following the outbreak of COVID 19, regional organisations, such as South Asian Association for Regional Cooperation (**SAARC**) and Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (**BIMSTEC**) have an important role to play. Bangladesh Prime Minister thanked the Indian Prime Minister for convening the SAARC leaders Video Conference in March 2020 in the outbreak of COVID-19.
- She also thanked the Indian Prime Minister for proposing creation of the **SAARC Emergency Response Fund** to counter effects of the global pandemic in the South Asian region.
- Bangladesh Prime Minister also reiterated the proposal for establishment of a **SAARC Medical and Public Health Research Institute** and sought support in this regard.

Invitation to Bangladesh to Join New Development Bank:

- Prime Minister Sheikh Hasina appreciated the work of the **New Development Bank, an initiative of BRICS (Bangladesh, Russia, India, China, and South Africa) countries** and thanked India for inviting Bangladesh to join the Institution. She welcomed the work of the Bank in multiple sectors including infrastructure development and expressed Bangladesh's willingness to be a part of the initiative.

SCIENCE & TECHNOLOGY

Emissions Gap Report 2020 Released by UNEP

- 'Emissions Gap Report 2020' annual publication of the United Nations Environment Programme (UNEP) was released on December 9, 2020.

- The Report provides **a yearly review of the difference between**

where greenhouse emissions are predicted to be in 2030, and

where they should be to avoid the worst impacts of climate change.

Highlights of the Report:

Growing Global Greenhouse Gas (GHG) Emissions:

- **Global Greenhouse Gas (GHG) emissions continued to grow** for the third consecutive year in 2019, reaching a record high of 52.4 Gigatonne carbon equivalent (GtCO₂e).
- **Carbon dioxide (CO₂) emissions** from fossil fuels and carbonates dominate total GHG emissions. They accounted for 65 per cent of the emissions.
- CO₂ emissions could decrease by about 7 per cent in 2020 compared with 2019 emission levels due to COVID-19.

Forest fires increasing GHG emissions:

- Since 2010, GHG emissions have grown at 1.3 per cent per year on average.

G20 countries account for bulk of emissions:

- Over the last decade, the top four emitters (China, the United States of America, EU27+UK and India) have contributed to 55 per cent of the total GHG emissions.
- G20 member countries accounted for 78 per cent of emissions.

Greenhouse Gas Emissions Declining in Developed Countries:

- **GHG emissions are declining in Organisation of Economic Cooperation and Development (OECD) economies and increasing in non-OECD economies.**
- Many OECD economies have had a peak in GHG emissions, with efficiency improvements and **growth in low-carbon energy sources more than offsetting the growth in economic activity.** Despite **improving energy efficiency and increasing low-carbon sources,** emissions continue to rise in countries with strong growth in energy use to meet development needs.

Net Zero Emission Goals:

- 126 countries covering 51 per cent of global GHG emissions have net-zero emission goals that are formally adopted, announced or under consideration.
- Some of the major countries which have net zero emissions goals are France and United Kingdom, European Union, China, Japan, South Korea, Canada, South Africa, Argentina and Mexico. All the above countries aim at achieving net zero emissions by 2050 except China. China has set 2060 as target for net zero emissions.
- If the United States of America adopts a net-zero GHG target by 2050, as suggested in the Biden-Harris climate plan, the share would increase to 63 per cent.
- To remain feasible and credible, it is imperative that these commitments are urgently translated into strong near-term policies and action, and are reflected in the Nationally Determined Contributions (NDCs).

Emissions Gap:

- By 2030, annual emissions need to be 15 GtCO₂e lower than current unconditional Nationally Determined Contributions (NDCs) imply for a 2°C goal, and 32 GtCO₂e lower for the 1.5°C goal.

Current NDCs Remain Seriously Inadequate:

- Current Nationally Determined Contributions (NDCs) remain seriously inadequate to achieve the climate goals of the Paris Agreement and would lead to a temperature increase of at least 3oC by the end of the century.
- Recently announced net-zero emissions goals could reduce this by about 0.5oC, provided that short-term NDCs and corresponding policies are made consistent with the net-zero goals.

COVID 19 and Opportunity for Emission Reductions:

- The COVID-19 crisis offers only a short-term reduction in global emissions and will not contribute significantly to emissions reductions by 2030 unless **countries pursue an economic recovery that incorporates strong decarbonisation.**
- Global GHG emissions are projected to be significantly reduced by 2030 if COVID-19 economic recovery is used as an opening to pursue strong decarbonisation. This could result in global GHG emissions of 44 Gt CO₂e (Giga tonne carbon dioxide equivalent) by 2030, a reduction of 15 GtCO₂e (just over 25 per cent) by 2030 compared with the pre-COVID-19 current policies scenario.

Additional Information:

What are Greenhouse Gases?

- Greenhouse gases trap heat and make the planet warmer. This is called global warming.
- Global warming is responsible for **extreme weather events** like floods, hurricanes, melting of glaciers, rise in sea levels, droughts, heat waves, wildfires, etc.
- Human activities (transportation, thermal electricity generation, agriculture, deforestation, etc) are responsible for almost all of the increase in greenhouse gases in the atmosphere over the last 150 years.
- Carbon dioxide (CO₂) is the primary greenhouse gas emitted through human activities. CO₂ accounts for about 80 percent of all greenhouse gas emissions from human activities.

Major Greenhouse Gases:

- 1) Carbon dioxide
 - 2) Methane
 - 3) Nitrous oxide, and
 - 4) Fluorinated gases.
- **Carbon dioxide** enters the atmosphere through burning fossil fuels (coal, natural gas, and oil), solid waste, trees and other biological materials, and also as a result of certain chemical reactions (e.g., manufacture of cement).
 - **Methane** is emitted during the production and transport of coal, natural gas, and oil.
 - Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.
 - **Nitrous oxide** is emitted during agricultural and industrial activities, combustion of fossil fuels and solid waste, as well as during treatment of wastewater.
 - **Fluorinated gases** are hydrofluorocarbons, perfluorocarbons, sulphur, hexafluoride, and nitrogen trifluoride. These are synthetic and powerful greenhouse gases that are emitted from a variety of industrial processes.

What is Net Zero Emission?

- Net zero means we are not adding new emissions to the atmosphere.
- Emissions will continue, but will be balanced by absorbing an equivalent amount from the atmosphere.

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- Under Paris Agreement on climate change, countries agreed on the need for keeping the global temperature to 1.5°C above pre-industrial era levels by the end of this century.
 - If we continue to pump out the emissions that cause climate change, however, temperatures will continue to rise well beyond 1.50, to levels that threaten the lives and livelihoods of people everywhere.
 - Hence, growing number of countries are making commitments to achieve carbon neutrality, or "net zero" emissions within the next few decades.

How Can the World Move Toward Net Zero Emissions?

- The following are some of the initiatives which could lead to Net Zero Emissions.

Renewable Energy:

- Powering economies with **clean energy** by replacing polluting coal - and gas and oil-fired power stations - with renewable energy sources, such as wind or solar farms.
- This would dramatically reduce carbon emissions. Renewable energy is now not only cleaner, but often cheaper than fossil fuels.

Electric Transport:

- A switch to **electric transport**, powered by renewable energy, would also play a huge role in lowering emissions. This would also slash air pollution in the world's major cities. Electric vehicles are rapidly becoming cheaper and more efficient, and many countries have proposed plans to phase out the sale of fossil-fuel powered cars.

Agriculture:

- Other harmful emissions come from agriculture (livestock produce significant levels of methane, a greenhouse gas). These could be reduced drastically if we eat less meat and more plant-based foods.

India Ranked 10th in the Climate Change Performance Index 2020

- India was ranked 9th in the **Climate Change Performance Index (CCPI) 2020** released on December 7, 2020.

About CCPI:

- It is developed by not-for-profit organisations Germanwatch and NewClimate Institute (Germany) together with the Climate Action Network (CAN International).
- The index is being released every year since 2005.

Significance of the Index:

- It is an important tool to enhance transparency in international climate change policy.
- It enables comparison of climate protection efforts and progress made by individual countries.

Criteria for the Index:

- The list is prepared by assessing performances of 57 countries and European Union (as a whole) in four categories :

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- GHG emissions (40%),
 - Renewable energy (20%),
 - Energy use (20%), and
 - Climate policy (20%).
 - These 57 countries and the EU collectively are responsible for about **90% of global Green House Gas (GHG) emissions.**

Major Findings of the Index:

- Globally none of the countries assessed are on path to meet their Paris Agreement commitment of keeping global warming below 2 degree Celsius, preferably to 1.5 degrees Celsius, compared to pre-industrial levels. They have not set a 2030 Green House Gases (GHG) target.
- **Carbon Dioxide, Methane, Nitrous Oxide and Fluorinated Gases** are the four main green house gases.
- Hence, the first three places were not given in the climate change performance index 2000.
- Even Sweden, the frontrunner in the index, does not fulfil those requirements.
- Hence, the ranking started with fourth place.
- **Sweden, United Kingdom, and Denmark** were ranked 4th, 5th , and 6th respectively.
- **China, the biggest current emitter of green house gases (GHG),** has been ranked 33.
- **USA, the largest historical polluter,** has been ranked at the bottom of the list.
- USA Australia, Saudi Arabia are a cause of "great concern" with their low to very low performance in emissions and renewable energy development as well as climate policy.
- These three governments are massively influenced by the coal and oil lobby and there are hardly any signs of serious climate policy in sight

India's Performance:

- India was ranked 10th in 2020 index. However, India's rank improved from 31 in 2014.
- It received high ratings on all CCPI indicators except 'renewable energy', where it was categorised as having a 'medium' performance.
- Although India had one of the largest growth trends, per capita emissions stayed at a comparatively low level.
- The country **needed to focus more on renewable energy**, both, as a mitigation strategy and for its post-novel coronavirus disease (COVID-19) **green recovery.**
- However, India is yet to **announce its mitigation strategy.**
- The strategy should include

reducing fossil fuel subsidies,

phasing out coal, and

raising self-sufficiency by domestic manufacturing in the renewable sector.

What are Fossil Fuels?

- Coal, crude oil, and natural gas are all considered fossil fuels because they were formed from the buried remains of plants and animals that lived millions of years ago.
- Many countries give fossil fuel subsidies as they are goods of mass consumption and they are to be made accessible to all.
- However, fossil fuel subsidies contribute to climate and health risks.
- They emit green house gases during combustion (carbon dioxide, a major component apart from methane and nitrous oxide) which contribute to climate change.
- They also pollute the air leading to health risks for the people.

India's First Indigenous mRNA Vaccine Candidate Receives Approval for Human Clinical Trials

- In December 2020, India's indigenous mRNA vaccine candidate, developed by the Pune-based Gennova Biopharmaceuticals, received approval from the Drug Controller General of India (DCGI) to carry out Phase I/II clinical trials on humans.
- Gennova's vaccine candidate, HGCO19, uses the same platform technology as those used by Covid-19 vaccines developed by Pfizer-BioNTech and Moderna.
- HGCO19, developed in collaboration with HDT Biotech Corporation of the US, has already demonstrated safety, immunogenicity and neutralisation antibody activity in animals. The neutralising antibody response of the vaccine in mice and non-human primates was comparable with the sera from convalescent patients of Covid-19.
- HGCO19 is stable at 2-8 degree Celsius for two months.
- This vaccine development is supported by grant from Department of Biotechnology (DBT), Ministry of Science and Technology.

What is mRNA vaccine?

- mRNA (Messenger RNA) vaccines are new type of vaccines to protect against infectious diseases.
- Traditional vaccines are made with live attenuated (weakened) or inactivated (killed) disease-causing organism, or the proteins that it produces, which are introduced into the body **to provoke the immune system into mounting a response.**
- mRNA vaccines, in contrast, trick the body into producing some of the viral proteins itself.
- An RNA vaccine consists of an mRNA strand that codes for a disease-specific antigen. Once the mRNA strand in the vaccine is inside the body's cells, the cells use the genetic information to produce the antigen. This antigen is then displayed on the cell surface, where it is recognised by the immune system and immune response is mounted against the antigen.

COVID-19 mRNA Vaccines:

- COVID-19 mRNA vaccines give instructions for our cells to make a harmless piece of what is called the "spike protein." The spike protein is found on the surface of the virus that causes COVID-19.
- Once the instructions (mRNA) are inside the immune cells, the cells use them for making the protein piece.
- Next, the cell displays the protein piece on its surface. Our immune systems recognise that the protein does not belong to that area and starts immune response by making antibodies, like what happens in natural infection against COVID-19.

What are the advantages of mRNA vaccines?

1) Faster and Cheaper:

RNA vaccines are faster and cheaper to produce than traditional vaccines as they are fully synthetic and do not require a host for growth, e.g., eggs or bacteria.

This **facilitates mass vaccination in a quick time.**

2) Safety:

RNA based vaccine are also safer for the patient, as they are not produced using the virus (inactivated or live attenuated)

Additional information on Vaccines:

What is vaccination?

- Vaccines reduce risks of getting a disease by working with body's natural defences to build protection.
- Vaccination is a simple, safe, and effective way of protecting people against harmful diseases, before they come into contact with them.
- A vaccine uses your body's natural defences to build resistance to specific infections and makes immune system stronger.
- Vaccines train your immune system to create antibodies, just as it does when it is exposed to a disease. However, because vaccines contain only killed or weakened forms of germs like viruses or bacteria, they do not cause the disease or put you at risk of its complications.
- Most vaccines are given by an injection, but some are given orally (by mouth) or sprayed into the nose.

Why is vaccination important?

- Vaccination is a **safe and effective way to prevent disease and save lives.**
- **Today there are vaccines available to protect against at least 20 diseases**, such as Cervical cancer; Cholera; Diphtheria; Hepatitis B; Influenza; Japanese encephalitis; Measles; Meningitis; Mumps; Pertussis; Pneumonia; Polio; Rabies; Rotavirus; Rubella; Tetanus; Typhoid; Varicella; Yellow fever.

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- Together, these vaccines save the lives of up to 3 million people every year.
 - Some other vaccines are currently under development or being piloted, including those that protect against Ebola or malaria, but are not yet widely available globally.

How does a vaccine work?

- Vaccines work by training and preparing the body's natural defences - the immune system - to recognise and fight off viruses and bacteria. If the body is exposed to those disease-causing pathogens later, it will be ready to destroy them quickly - which prevents illness.
- When one gets a vaccine, immune system responds.
- The immune system
 - Recognises the invading germ, such as the virus or bacteria.
 - Produces antibodies. Antibodies are proteins produced naturally by the immune system to fight disease.
 - Remembers the disease and how to fight it. If you are then exposed to the germ in the future, your immune system can quickly destroy it before you become unwell.
- The vaccine is therefore a safe and clever way to produce an immune response in the body, without causing illness.
- Our immune systems are designed to remember. **Once exposed to one or more doses of a vaccine, we typically remain protected against a disease for years, decades or even a lifetime.** This is what makes vaccines so effective.
- **Rather than treating a disease after it occurs, vaccines prevent us in the first instance from getting sick.**

What are the components in a vaccine?

- Vaccine consists of some ingredients which play an important role in ensuring a vaccine is safe and effective. Some of these include:
 1. **The antigen.** This is a killed or weakened form of a virus or bacteria, which trains our bodies to recognise and fight the disease if we encounter it in the future.
 2. **Adjuvants** help to boost our immune response. This means they help vaccines to work better.
 3. **Preservatives** ensure a vaccine stays effective.
 4. **Stabilisers** protect the vaccine during storage and transportation.

Are there side effects from vaccines?

- Like any medicine, **vaccines can cause mild side effects**, such as a low-grade fever, or pain or redness at the injection site. Mild reactions go away within a few days on their own.
- Severe or long-lasting side effects **are extremely rare.**
- Vaccines are continually monitored for safety, to detect rare adverse events.

How do vaccines protect individuals and communities?

- When a person gets vaccinated against a disease, their risk of infection is also reduced - so that they are also less likely to transmit the virus or bacteria to others.
- As more people in a community get vaccinated, fewer people remain vulnerable, and there is less possibility for an infected person to pass the pathogen on to another person.
- Lowering the possibility for a pathogen to circulate in the community protects those who cannot be vaccinated (due to health conditions, like allergies, or their age) from the disease targeted by the vaccine.
- 'Herd immunity', also known as 'population immunity', is the indirect protection from an infectious disease that happens when immunity develops in a population either through vaccination or through previous infection.

Export of Akash Missiles Approved

- In a major move to boost domestic defence manufacturing, the Union Government approved export of the indigenously developed and manufactured Akash short-range Surface to Air Missile (SAM) systems on December 30, 2020.
- The Government also approved the high-level committee formed to expedite clearance of defence exports.

About Akash Missile :

- Akash is a short range **Surface to Air Missile**.
- It has a **range of 25 Kms**.
- It can **simultaneously engage multiple targets in all weather conditions**.
- It has a large operational envelope **from a low altitude of 30 metres to a maximum of up to 20 km**.
- The missile was **inducted in 2014 in Indian Air Force (IAF) and in 2015 in Indian Army**.
- After its induction in the Services, many friendly countries showed interest in Akash missile during International Exhibitions/Defence Expositions.
- Hence, the Union Government approved export of Akash missiles.
- Akash missile has 96 percent indigenisation.
- So far, Indian defence exports included parts/components etc.
- The export of big platforms was minimal.
- This initiative of the Cabinet would help the country to expand its defence products and make them globally competitive.

Committee for Faster Approval of Exports:

- Besides Akash, there is interest coming in other major platforms like Coastal Surveillance System, Radars and Air platforms.

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- Under the Line of Credit (LoC) of \$500 million extended by India to Vietnam in 2016, Viet Nam has expressed interest in procuring the Akash system and Dhruv Advanced Light Helicopter.
 - Hence, to provide faster approvals for export of such platforms, a Committee comprising of Raksha Mantri, External Affairs Minister and National Security Advisor has been created.
 - This Committee would authorise subsequent exports of major indigenous platforms to various countries.
 - The Committee would also explore various available options including the **Government-to-Government route**.
 - Government of India intends to **focus on exporting high value defence platforms, to achieve target of 5 Billion US dollars of defence export by 2025**.
 - **India exported defence equipment worth Rs 10,745 crore in 2018-19.**
 - **Defence platforms that hold export potential** include the light combat aircraft, Astra beyond-visual-range air-to-air missile, Prahar surface-to-surface missile, supersonic cruise missile Brahmos, sonars, a variety of unmanned systems and battlefield radars.
 - Defence items already being exported include the **advanced light helicopter, offshore patrol vessels, personal protective gear, surveillance systems and a variety of radars.**

Ladakh's Tso Kar Wetland Complex Added to Ramsar Convention

- Tso Kar Wetland Complex in Ladakh became the 42nd Ramsar site in India under Ramsar Convention after its addition in December 2020.

What is Ramsar Convention?

- The Convention on Wetlands of International Importance, more commonly known as the Ramsar Convention, is **an international agreement promoting the conservation and wise use of wetlands**.
- The Convention was adopted in the Iranian city of Ramsar (hence know as Ramsar convention) in 1971 and came into force in 1975.
- Presently, 171 countries have acceded to Ramsar Convention.
- Under the "three pillars" of the Convention, the Contracting Parties (countries which are part of the convention) commit to:
 - work towards the wise use of all their wetlands;
 - designate suitable wetlands for the list of Wetlands of International Importance (the "Ramsar List") and ensure their effective management; and
 - cooperate internationally on transboundary wetlands, shared wetland systems and shared species.

About Kar Wetland Complex:

- The Tso Kar Basin is a high-altitude wetland complex, consisting of two principal waterbodies:
 - Startsapuk Tso, a freshwater lake of about 438 hectares to the south, and

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- Tso Kar itself, a hypersaline lake of 1800 hectares to the north, situated in the Changthang region of Ladakh.
 - It is called Tso Kar, meaning white lake, because of the white salt efflorescence found on the margins due to the evaporation of highly saline water.
 - The Tso Kar Basin is an Important Bird Area (IBA) as per Bird Life International and a key staging site in the Central Asian Flyway.
 - The site is also one of the most important breeding areas of the Black-necked Crane (*Grus nigricollis*) for Great Crested Grebe (*Podiceps cristatus*), Bar-headed Geese (*Anser indicus*), Ruddy Shelduck (*Tadorna ferruginea*), Brown-headed Gull (*Larus brunnicephalus*), Lesser Sand-Plover (*Charadrius mongolus*) and many other species.

Importance of Wetlands:

- Wetlands are among the most diverse and productive ecosystems.
- They provide a wide range of important resources and ecosystem services such as **food, water, fibre, groundwater recharge, water purification, flood moderation, erosion control and climate regulation.**
- The Ramsar Convention uses a broad definition of wetlands. It includes all lakes and rivers, underground aquifers, swamps and marshes, wet grasslands, peatlands, oases, estuaries, deltas and tidal flats, mangroves and other coastal areas, coral reefs, and all human-made sites such as fish ponds, rice paddies, reservoirs and salt pans.

Translocation of Tigers to Rajaji Tiger Reserve

- A five year old female tigress was translocated from Corbett Tiger Reserve to Rajaji Tiger Reserve in December 30, 2020. Both the tiger reserves are located in Uttarakhand.
- Five tigers, including two young males and three females, will be shifted in a phased manner to Rajaji Tiger Reserves' western part.

Why Translocation to Rajaji Tiger Reserve?

- Rajaji Tiger Reserve has 34 tigers.
- 32 of them are in its eastern part, which is spread across 150 square (sq) kilometres (km).
- Only two tigresses are there in the western part that covers 570 sq km.
- Western part has not reported any breeding of the tigers in about a decade. The two tigers which are there at present are more than 18 years old and are past their reproductive age.
- Though tigers are present in eastern part of the reserve, a busy traffic corridor divides the eastern and the western part of the Rajaji Tiger Reserve and acts as a stumbling block for tigers' free movement between the western and eastern part.
- Hence, tigers are being relocated from Corbett Tiger Reserve to increase the population of tigers in the western part of the Rajaji tiger reserve.

Why Translocation from Corbett Tiger Reserve?

- Corbett Tiger Reserve has high population density.

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- It has a tiger population of around of around 230, the highest density of tigers in the wild, globally.

Significance of Tiger in the Ecosystem:

- Tigers play a pivotal role in the health and diversity of an ecosystem.
- Tigers are also referred to as a '**keystone species,**' which means that removing them from an environment can lead to serious consequences for biodiversity and ecology.
- It is a top predator which is at the apex of the food chain and **keeps the population of herbivores like deers, boars, etc. in check.** A steep **fall in tiger population could lead to a rise in herbivore population,** which could potentially destroy forests by consuming the trees and plants. And forests have a huge role to play in preserving this earth that we live in.
- Forests have to be saved as they act as carbon sinks. Being the dominant predators of the ecosystem, they ensure that the numbers of herbivores like deer are kept balanced.
- Under the **Reduced Emissions from Deforestation and Degradation approach of the United Nations Framework Convention on Climate Change (UNFCCC),** climate change is sought to be addressed by using forests as carbon sinks. Loss of tigers results in increase of herbivore population, which in turn results in forests getting decimated.

Pobitora Wildlife Sanctuary

- Pobitora Wildlife Sanctuary in Assam, referred to as 'Mini Kaziranga' for similar features, was in news in December 2020.

Details:

- One-horned rhinos in the Pobitora Wildlife Sanctuary are facing shortage of nutritious grass on which they feed.
- There are an estimated 102 rhinos in the sanctuary.
- Two rhinos died recently. Their alimentary canals had high load of worms due to consumption of dry weeds and other non nutritious grass in the sanctuary.
- Reason for nutritious grass:
- One of the factors behind the crisis of nutritional grass in Pobitora is that there is competition for nutritious grass from cattle that graze on the fringes of the sanctuary.
- **Non-rejuvenation of nutritious grass due to change in flood pattern and expansion of woodland in the sanctuary** are also other reasons for shortage of food for Rhinos, leaving the rhinos with less than 8 sq km of grassland to feed on.

About Rhinos:

- One-Horned Rhinoceros is a large herbivorous animal.
- These large herbivores are shapers of their landscape and environment.
- They help in seed dispersion, moving large tree seeds from forested areas to grasslands through excreta.

- The habitat of the Indian rhino once extended from Pakistan into northern India and modern-day Myanmar, reaching into Nepal, Bangladesh and Bhutan.
- However, loss of large tracts of habitat and extensive **poaching for its horn** - believed to have medicinal and aphrodisiacal properties - **led to its extinction in all these countries**, except in India and Nepal.
- By the 1900s, only between 100 and 200 rhinos survived in the wild.
- But today, it is the only large mammal species in Asia to be down-listed from endangered to vulnerable in the International Union for Conservation of Nature, IUCN Red list in 2008.
- **India is home to the largest number of One-Horned Rhinoceros** in the world with population in the range of 3000 animals in Assam, West Bengal and Uttar Pradesh.
- More than 91 per cent of Indian rhinos are in Assam.
- Within Assam, rhinos are concentrated within Kaziranga national park, with a few in Pobitora wildlife sanctuary. Kaziranga is home to more than 90 per cent of Assam's rhinos - and more than 80 per cent of India's count. 2015 population census by Kaziranga park authorities revealed 2,401 rhinos within the park.
- India is implementing the National Rhino Conservation Strategy to conserve the greater one-horned rhinoceros. The strategy focuses on strengthening protection, expanding the distribution range, research and monitoring, and adequate and sustained funding.

Japan's Hayabusa2 Carrying Asteroid Rocks Lands in Australia

- Hayabusa2, a Japanese space probe carrying the first extensive samples of asteroid Ryugu, completed its six-year mission, and landed safely in the remote Australia.
- The mission by the Japan Aerospace Exploration Agency (JAXA) Hayabusa2 seeks to **answer some fundamental questions about the origins of the solar system** and where molecules like water came from.
- The spacecraft, launched from Japan's Tanegashima space centre in 2014, took four years to reach the asteroid Ryugu before taking a sample and heading back to Earth in November 2019.
- Hayabusa2 is the successor to Japan Aerospace Exploration Agency's (JAXA) first asteroid explorer, Hayabusa that returned with dust samples from a smaller, potato-shaped asteroid in 2010. It was the first to bring asteroid dust back to Earth, although not as much as hoped.
- Hayabusa2 collected pristine materials from beneath the surface of the asteroid that could provide insights into what the solar system was like at its birth, some 4.6 billion years ago.
- **Asteroids, which orbit the sun but are much smaller than planets**, are among the oldest objects in the solar system.
- **Asteroids are believed to have formed at the dawn of the solar system** and scientists say Ryugu may contain organic matter that may have contributed to life on Earth.
- Hayabusa2 touched down twice on Ryugu, despite its extremely rocky surface, and successfully collected data and samples during the 1½ years it spent near Ryugu after arriving there in June 2018.

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- In its first touchdown in February 2019, it collected surface dust samples. In a more challenging mission in July that year, it collected underground samples from the asteroid for the first time in space history after landing in a crater that it created earlier by blasting the asteroid's surface.

10 out of 13 Honey Brands Fail 'Purity Test'

- 10 out of 13 honey brands in India failed 'purity test' as per the results of the investigation by Centre for Science and Environment (CSE) published in December 2020.
- Centre for Science and Environment is a not-for-profit public interest research and advocacy organisation based in New Delhi.

Findings of the investigation:

- Indian honey companies are importing synthetic sugar syrups from China for adulterating with honey.
- CSE food researchers selected 13 brands honey, including Dabur, Patanjali, Baidyanath and Zandu, and subjected them to tests that are required under Food Safety and Standards Authority of India (FSSAI) regulations to be labelled as honey as well as Nuclear Magnetic Resonance (NMR) Spectroscopy test which is not required in India.
- Among the tests employed under Indian regulations is one to check whether the honey is adulterated with C4 sugar (cane sugar) or C3 sugar (rice sugar). Most samples cleared these tests.
- But, these could not clear Nuclear Magnetic Resonance (NMR) Spectroscopy test. This test detected the presence of syrups in the honey. These syrups were capable of passing off as honey, even up to half of which were mixed with sugar syrup, as 'pure honey'.
- CSE conducted Nuclear Magnetic Resonance (NMR) Spectroscopy test for the Indian honey brands at a lab in Germany.
- Only three brands (spanning six samples) passed: Saffola, Markfed Sohna and Nature's Nectar.

What is Nuclear Magnetic Resonance (NMR) Spectroscopy Test?

- Nuclear Magnetic Resonance (NMR) Spectroscopy test is a sophisticated test that can ascertain the composition of a product at the molecular level.
- This technology has evolved from taking MRIs of the brain and is **increasingly being applied in food chemistry to unravel the chemical structure of food to detect the presence of additives more efficiently than routine, lab-based chemical tests.**
- Nuclear Magnetic Resonance (NMR) Spectroscopy test is not required by Indian law for honey that is being marketed locally but is needed for export.

Why Companies are Adulterating?

- There is growing demand for honey due to its health benefits.
- According to Expert Market Research, the India's honey market reached a value of about Rs. 1,729 crore in 2019.

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- Sugar syrups imports from China are cheaper. Hence, they are importing from China and mixing with honey to make profits. Moreover, sugar syrup is not detected by test mandated by tests under Food Safety and Standards Authority of India (FSSAI) regulations

Impact of Adulteration:

- Honey has health benefits.
- It is rich in antioxidants, amino acids and other products that give honey its medicinal properties. This is why honey is part of traditional medicine and has been promoted as an immune system stimulant.
- The addition of artificial sugar syrups reduces the concentration of these elements per gram of honey and deprives the consumers health benefits of honey.

Sports:

Government Approves Inclusion of Four Indigenous Sports in Khelo India Youth Games 2021

- In December 2020, the Union Sports Ministry approved the inclusion of four indigenous Games to be a part of Khelo (Play) India Youth Games 2021, scheduled to take place in Haryana. The games include,
 - 1) Gatka,
 - 2) Kalaripayattu,
 - 3) Thang-Ta, and
 - 4) Mallakhamba.
- The four selected games represent different parts of the country.
- **Kalaripayattu is a martial art that** has its origin from **Kerala** and has practitioners all over the world.
- **Mallakhamba, gymnastic performance performed on a vertical pole, cane or rope**, has been well-known across India and **Madhya Pradesh and Maharashtra** have been the hotspots of this sport.
- **Gatka** originates from **Punjab** and this **traditional fighting style** of the Nihang Sikh Warriors is used both as self-defense **as well as a sport**.
- **Thang-Ta**, a Manipur marital art has passed into oblivion in the recent decades, but the sport will get national recognition again with the help of the Khelo India Youth Games 2021.

Importance of Sports:

- The importance of sports in one's life is invaluable.
- **Playing sports inculcates team spirit, develops strategic & analytical thinking, leadership skills, goal setting and risk taking.**
- A fit and healthy individual leads to an equally healthy society and strong nation.

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- Sports are also an extremely important component for the overall development of a nation.

Khelo India programme:

- The Khelo India programme has been introduced to
 - 1) revive the sports culture in India at the grass-root level by building a strong framework for all sports played in our country, and
 - 2) establish India as a great sporting nation.
- Under the Khelo India programme, sports are held at school, college and university level across India.

4 New Sports Added to Paris Olympics Games

- In December 2020, the International Olympic Committee added the following four games to the 2024 Paris Olympics.
 - 1) Skateboarding,
 - 2) Sport climbing,
 - 3) Surfing, and
 - 4) Breaking (official name for competitive breakdancing).

About Olympic Games:

- The Olympic Games are an international sports festival, held every four years.
- The ultimate goals are to **cultivate human beings, through sport, and contribute to world peace.**
- Summer Games and Winter Games are held separately.
- The history of the Olympics began some 2,300 years ago.
- Their origin lays in the Olympian Games, which were held in the Olympia area of ancient Greece. Although there are some theories on its initial purposes, the Games have been said to have started as a festival of art and sport, to worship gods. The ancient Olympic Games, however, **ended in 393 because of the outbreaks of wars in the region in which they were held.**
- After a 1,300 year absence of the ancient Olympic Games, the event was resumed in the late nineteenth century, thanks to the efforts of **Baron Pierre de Coubertin**, a French educator. In 1894, his proposal to revive the Olympic Games was unanimously approved at the International Congress in Paris, and the first Olympic Games were held in Athens, Greece, two years later in 1896. Since then they have been staged every fourth year, except during World War I and World War II (1916, 1940, 1944).

Five-ring Emblem:

- **Baron Pierre de Coubertin** devised the **five-ring emblem** that is familiar to most people as the Games' symbol, which represents the unity of the **five continents.**

Olympism:

- Olympism, the spirit of the Olympic Games advocated by Coubertin, is "The elevation of the mind and soul, overcoming differences between nationalities and cultures, embracing friendship, a sense of solidarity, and fair play; ultimately leading to the contribution towards world peace and the betterment of the world". This philosophy has been passed down, unchanged, to this day, so Coubertin is considered to be the "**Father of the modern Olympics**".

Olympic Truce: (The Dove, Symbol of Peace):

- The Olympic Truce is symbolised by the **dove with the traditional Olympic flame in the background**. In a world that is plagued by wars and animosity, the dove represents the International Olympic Committee's (IOC) goal to build a peaceful and better world through sport.
- The "Olympic Truce" was established in ancient Greece in the 9th century BC by the signature of a treaty between three kings.
- All conflicts ceased during the period of the Truce, which began seven days prior to the opening of the Olympic Games and ended on the seventh day following the closing of the Games, so that athletes, artists, their relatives and pilgrims could travel safely to the Olympic Games and afterwards return to their countries.
- Today the Olympic Truce has become an expression of **mankind's desire to build a world based on the rules of fair competition, peace, humanity and reconciliation**.

MISCELLANEOUS (AWARDS, PERSONS, SPORTS)

NATIONAL PERSONS

Mahashay Dharampal Gulati (97), owner of MDH (Mahashian Di Hatti) spices, passed away in New Delhi on December 3, 2020.

Born in Sialkot (now in Pakistan) in 1923, he came to India after Partition. Mahashian Di Hatti (MDH) was founded by his father Mahashay Chunni Lal Gulati.

Mahashay Dharampal Gulati worked through a variety of businesses, including soaps, hardware, cloth and rice trading, before restarting his family business. He started with a small shop in Karol Bagh and built it into a company with a turnover of Rs.1500 crore annually. He was awarded Padma Bhushan in 2019 for his entrepreneur skills.

Dineshwar Sharma (66), Lakshadweep's Administrator and former Intelligence Bureau chief, passed away due to lung disease in Chennai on December 4, 2020.

Mr. Sharma, a 1979-batch Indian Police Service (IPS) officer, hailed from Bihar. He served as Intelligence Bureau Director from 2014 to 2016.

After his retirement, the government was keen on giving him an extension but he turned down the offer, saying it would upset the succession chart of his juniors. He was then appointed as an interlocutor for talks with the Assam-based insurgent groups and also headed a committee to restructure the Home Ministry.

He was appointed as the interlocutor of the Centre for Jammu and Kashmir in October 2017. He held several rounds of talks with stakeholders in Jammu and Kashmir before the Centre revoked its special status in 2019, bifurcating the erstwhile state into two Union Territories. He was appointed as the administrator of Lakshadweep in October 2019.

Colonel Narinder Kumar (Retd.) (87), instrumental in the Army launching 'Operation Meghdoot' and securing the dominating heights of Siachen Glacier in 1984, died at the Army's Research and Referral (R&R) Hospital in New Delhi on December 31, 2020.

It was based on the recce reports from his expeditions to the Siachen Glacier and the Salto Range as Commandant of the "High Altitude Warfare School (HAWS) that the Army launched "Op Meghdoot" in 1984, narrowly pre-empting Pakistan's attempts in the process.

On April 13, 1984, India launched Operation Meghdoot to capture the 76.4-km glacier on the Salto ridge.

Col. Kumar was awarded Padma Shri in 1965. He was decorated with Param Vishisht Seva Medal, Kirti Chakra and Ati Vishisht Seva Medal. He is a recipient of the Mac Gregor Medal awarded to armed forces personnel for military reconnaissance. The battalion headquarters on the glacier close to an altitude of 16,000 feet is named "Kumar post" in his honour.

Madhav Govind Vaidya (97), Rashtriya Swayamsevak Sangh (RSS) ideologue and the organisation's first spokesperson, passed away on December 19, 2020. He had an eight-decade-long association with the Rashtriya Swayamsevak Sangh (RSS).

Motilal Vora (91), veteran Congress Party leader, passed away in New Delhi on December 21, 2020.

He held several key positions, including Chief Minister of undivided Madhya Pradesh twice (1985-88 and 1989), Health Minister in Rajiv Gandhi's Cabinet and Governor of Uttar Pradesh in the mid-1990s.

Sunil Kothari (87), eminent dance scholar and critic, passed away on December 15, 2020 in Delhi because of COVID-19-related complications.

Kothari travelled to every nook and corner of the country to document both celebrated and less-known performers.

He wrote extensively on Bharatanatyam, Kathak and Manipuri dance forms. His scholarly work, Sattriya: Classical Dance of Assam, helped in creating a better understanding of the dance form in the national and global circuit. His other notable contributions include 'New Directions in Indian Dance' and 'Kuchipudi Indian Classical Dance Art'.

Kothari was instrumental in establishing the School of Arts and Aesthetics at the Jawaharlal Nehru University and mentored many art scholars. He was awarded Padma Shri for his contribution to dance.

Shamsur Rahman Faruqi (85), novelist, literary critique, and poet, passed away on December 15, 2020. He was also civil servant who worked in the Indian Postal Service.

SPORTS PERSONS

Paolo Rossi (64), a hero of Italian football who played a key role in the 1982 World Cup victory, passed away on December 15, 2020

He became famous in the 1982 world cup tournament with a hat-trick in the 3-2 defeat of Brazil. In the semifinals he scored both goals as Italy beat Poland 2-0, and he hit the opener in the 3-1 win over West Germany in the final.

Rossi finished top scorer in the tournament with six goals. Along with Christian Vieri and Roberto Baggio, he holds the Italian record for nine goals scored in the World Cup.

INTERNATIONAL AWARDS

'Legion of Merit' Award:

Prime Minister Narendra Modi was awarded the 'Legion of Merit' by U.S. President Donald Trump in December 2020 for his role in advancing the India-U.S. relationship. The award was also presented to former Japanese Prime Minister Shinzo Abe and Australian Prime Minister Scott Morrison.

India, the U.S., Japan and Australia constitute the 'Quad' group of countries - seen as an alternative to Chinese dominance in the Indo-Pacific region.

The Legion of Merit, instituted in 1942 by former U.S. President Franklin D. Roosevelt, is awarded to members of the U.S. Armed Forces and also members of foreign (i.e., non-U.S.) Armed Forces and sometimes heads of state or government.

The award is presented to foreign recipients in four categories: Chief Commander, Commander, Officer and Legionnaire.

Other Indians who have won the award include Field Marshal K.M. Cariappa, who received the Legion of Merit (Degree: Chief Commander) in 1949 from then U.S. President Harry S. Truman.

NATIONAL AWARDS

Winners of Infosys Prize:

The **Infosys Science Foundation (ISF)** announced the winners of the Infosys Prize 2020 in December 2020 in six categories for their contributions to science and research - Engineering and Computer Science, Humanities, Life Sciences, Mathematical Sciences, Physical Sciences, and Social Sciences. After a virtual press conference announcing the winners, they were awarded in a virtual ceremony the same day.

The prize consists of a gold medal, a citation and a cash of US \$1,00,000.

Winners:

1. **Engineering and Computer Science:** Hari Balakrishnan from the Massachusetts Institute of Technology
2. **Life Sciences:** Rajan Sankaranarayanan from the Centre for Cellular and Molecular Biology, Hyderabad

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3. Mathematical Sciences: Sourav Chatterjee from Stanford University
 4. Physical Sciences: Arindam Ghosh from the Indian Institute of Science, Bangalore
 5. Humanities: Prachi Deshpande from the Centre for Studies in Social Sciences, Kolkata
 6. Social Sciences: Raj Chetty from Harvard University.

SPORTS AWARDS

ICC Awards of the Decade:

International Cricket Council (ICC) announced the 'ICC Awards of the Decade' in December 2020.

The winners:

Men's Awards:

Sir Garfield Sobers Award for Male Cricketer-of-the-Decade: Virat Kohli

Men's One Day International (ODI) Cricketer: Virat Kohli.

Men's Test cricketer: Steve Smith

T20I cricketer: Rashid Khan

Men's Associate cricketer: Kyle Coetzer

Spirit of Cricket award: M.S. Dhoni

Women's Awards:

Rachael Heyhoe-Flint Award for Female Cricketer-of-the-Decade: Ellyse Perry (Australia)

Women's ODI Cricketer of the Decade: Ellyse Perry

ICC Women's T20I Cricketer of the Decade: Ellyse Perry

Women's Associate cricketer: Kathryn Bryce

Details:

The ICC Awards of the Decade recognise the best players across Cricket over the past 10 years.

For the first time, winners across categories were selected by fans through votes.

Virat Kohli had scored 20,396 runs in all international cricket during the time period, which is more than anyone else. He was also part of team India that won the ICC CWC 2011 and ICC Champions Trophy 2013. He was also named ICC Cricketer of the Year in both 2017 and 2018.

MS Dhoni won the ICC Spirit of Cricket Award of the Decade, chosen by fans unanimously for his gesture of calling back former England batter Ian Bell following a disputable runout at Trent Bridge in 2011.