



EXCEL QUEST

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India-Maldives relations



Beti Bachao Beti Padhao(BBBP)



Power Grab in Tunisia



NITI Aayog Launches the National Data & Analytics Platform



Iran Nuclear Deal Talks



Record Foodgrains Production of 314.51 million tonnes estimated in the country



Re-conceptualising flood: The Assam floods in context



Explained: What are cloudburst incidents

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Director's Message

Dear Aspirants,

The path to India's Independence was a long winding and remarkable journey marked by an exemplary show of non-violent resistance and civil disobedience. Indians finally had the sovereign right to decide their own future. On the eve of India's Independence, towards the midnight of August 14th 1947, the first Prime Minister of India, Pt. Jawaharlal Nehru delivered the famous speech "Tryst with Destiny" to mark the historic moment. It encapsulated the essence of India's freedom struggle which culminated into India's independence from the British colonial. Not many of us know that the national flag was actually hoisted by the first Prime Minister Jawaharlal Nehru at the Princess Park near India Gate in New Delhi on August 15, 1947 as he along with the first Governor General of Independent India, Lord Mountbatten could not make their way to the Red Fort as planned due to the huge crowd and accordingly hoisted the Indian national flag on the Lahori Gate of Red Fort in Delhi on next day, ie on 16th August 1947.

The Independence also coincided with the partition of British India into India and Pakistan on religious lines. There was gloom alongside jubilation following violent clashes due to the partition. The violence was so widespread that Mahatma Gandhi spent the day fasting instead of celebrating it. Maintaining unity and territorial integrity in the wake of partition was a herculean task. The nation was in economic distress as the policies of the British focussed more on generating wealth for them thereby destroying the agricultural and industrial ecosystem. The literacy rate was minimal at 12 per cent and the country needed external help for food security as it was marred with famines. The society was divided on religion, caste and class lines. Discrimination was rampant and the life expectancy was one of the lowest in the world. Many observers predicted that Balkanization of India was inevitable as India has never been a single unit. India included the regions directly administered by the British and more than 560 Princely States whose rulers proclaimed to be Sovereign. India was destined to disintegrate and fail as per the assessment of the political analysts of the yore. The political leadership faced a thorny road ahead on both social and economic fronts.

On 15th August 2022, India celebrated 75 years of Independence. It has come a long way and proved the predictions of doomsday wrong. It has established itself as one of the largest functioning and thriving democracies in the world. The Constitution of India which came into force on 26th January 1950 declared India as a Sovereign, Democratic and Republic State. The Constitution guaranteed universal adult franchise to all Indians above the age of 21. The people who were earlier deprived of their right to choose their leader were granted a right to have a say in the government. The Constitution also guaranteed equality before law to all citizens irrespective of their caste or religious affiliations. Untouchability was abolished and was made punishable under law. The Constitution clearly demarcated

the powers of both the Central and State governments to ensure the smooth functioning of the democracy. The Constitution also ensured the independence of Judiciary to safeguards the rights of citizens against the excesses of the Executive and Legislature with adequate checks and balances. Women have been accorded one third reservation in local bodies and the Right to Information Act ensured the transparency and accountability of the government departments.

The Green Revolution ensured the food safety of millions of Indians. India also has exported food grains on humanitarian grounds to countries embroiled in crisis. The White Revolution was the largest dairy development program in the world which helped India become self-sufficient in milk production. The operation “Smiling Buddha” in Pokhran, Rajasthan on May 18, 1974 resulted in India becoming the world’s sixth nuclear power. The life expectancy of Indians in 1947 was around 32 years and in 2022, it has reached 70 years. This is a result of accessibility of affordable health care and the improved standards of living. From carrying rocket parts on a bicycle to the launch site in Thiruvananthapuram in 1963 to launching a mission to Mars “Mangalyaan” in lesser budget than that of a Hollywood movie in 2014, India has proven its technological prowess to the world. India has maintained its territorial integrity and successfully foiled such bids during the Indo-Pak and Indo-China wars. India which was counted among the “fragile five” in 1947 with a GDP of Rs.2.7 lakh Crore is now poised to become the fifth largest economy in the world with Rs.150 lakh Crore GDP. The entry of India into the “QUAD” grouping reinforces its position as a strong player in world politics.

Prime Minister Narendra Modi, during his address to the nation on the occasion of 75th Independence Day, set an ambitious target of making India a developed nation by 2047. He insisted on cutting down imports and boost domestic manufacturing. The need of the hour is to ensure highest level of economic growth, good standard of living and the highest per capita income as well as performing well on the Human Development Index (HDI) that includes education, health and literacy. He envisaged an ‘Atma Nirbhar Bharat’ and India becoming a manufacturing power house of the world. A politically stable, economically and militarily strong India can play a very vital role in the global geopolitics in the times to come.

Best wishes,

Yours sincerely,



K Rajendra Kumar IPS (Retd)

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1. NATIONAL

1.1 States' Startup Rankings 2021

- India has the third-largest Start-Up Ecosystem in the world. Recently, the third edition of States' Startup Ranking 2021 was released in which the Indian States were ranked on the basis of their support and contribution to making the Startup Ecosystem in the country. The ranking report was released by the Union Minister of Commerce and Industry Piyush Goyal.
- It is an annual report presented by *the Department for Promotion of Industry and Internal Trade (DPIIT)*, ranking the country's states and UTs according to their startup ecosystems. First launched in February 2018, States and Union Territories are classified into **5 categories, that is Best Performers, Top Performers, Leaders, Aspiring Leaders and Emerging Start-up Ecosystems**.

Highlights:

1. Gujarat and Karnataka emerged as the Best Performers in a category of States, which included Delhi.
2. Meghalaya won the top honour among UTs and North-eastern (NE) States.
3. Kerala, Maharashtra, Orissa and Telangana got the Top Performers award among states.
4. Jammu & Kashmir emerged as the Top Performer among UTs and NE states.
5. Assam, Punjab, Tamil Nadu, Uttarakhand and Uttar Pradesh were adjudged the winners in the Leaders category among states; Andaman & Nicobar Islands, Arunachal Pradesh and Goa bagged the Leaders honour among the UTs and NE states.
6. Chhattisgarh, Delhi, Madhya Pradesh and Rajasthan were declared Aspiring Leaders among the States. Chandigarh, Dadra and Nagar Haveli & Daman and Diu, Himachal Pradesh, Manipur, Nagaland, Puducherry and Tripura were the Aspiring Leaders from the UTs and NE states.
7. Andhra Pradesh and Bihar from the States category and Mizoram and Ladakh from the UTs/NE States were clubbed under the Emerging Start-up Ecosystem.

How participants are evaluated?

- The participants were evaluated across **7 broad reform areas** consisting of 26 Action Points that included, Institutional Support, Fostering Innovation and Entrepreneurship, Access to Market, Incubation support, Funding Support, Mentorship Support to Capacity Building of Enablers.
- The consideration period for the third edition of the States Startup Ranking Exercise was from 1st October 2019 to 31st July 2021.

1.2 Business Reforms Action Plan (BRAP), 2020

- Released by Finance minister to assess the states and UTs. 'Business Reforms Action Plan report is being released by DPIIT, since 2014 for steering business reforms, in order to create investor-friendly ecosystem across India.

States have been categorized into **four categories:**

1. Top achievers
2. Achievers

3. Aspires

4. Emerging business ecosystems

- The BRAP report comprises of 301 reform points, covering 15 business regulatory areas like access to Information, labour, single window system, sectoral reforms, environment, and other reforms related to lifecycle of a typical business.
- In it, sectoral reforms have been introduced for the first time. In it, 72 reforms were identified across 9 sectors viz., healthcare, trade licence, cinema halls, legal metrology, fire NOC, hospitality, movie shooting, telecom, and tourism.

Top achievers: Gujarat, Andhra Pradesh, Haryana, Telangana, Punjab, Karnataka, and Tamil Nadu.

Achievers: Himachal Pradesh, Maharashtra, Madhya Pradesh, Uttarakhand, Odisha, and Uttar Pradesh.

Aspires: Assam, Goa, Kerala, Jharkhand, Chhattisgarh, West Bengal and Rajasthan.

Emerging business ecosystems:

- 11 States and UTs including Puducherry, Delhi and Tripura have been listed. Others include- Andaman & Nicobar, Chandigarh, Bihar, Daman & Diu, Jammu & Kashmir, Dadra & Nagar Haveli, Meghalaya, Manipur, Tripura and Nagaland.

1.3 United Nations' World Population Prospects, 2022

- It is a biennial report published by the population division of UN, it has been publishing it since 1951. It is the 27th edition.
- The report apart from projecting population also looks at mortality, fertility and international migration.
- In 2011, the world population was 7 billion and it's expected to grow to around 8.5 billion in 2030.

World Population	Year
1 billion	1804
2 billion	1927
3 billion	1959
4 billion	1974
5 billion	1987
6 billion	1998
7 billion	2011
8 billion	2022

Source: United Nations Population Fund

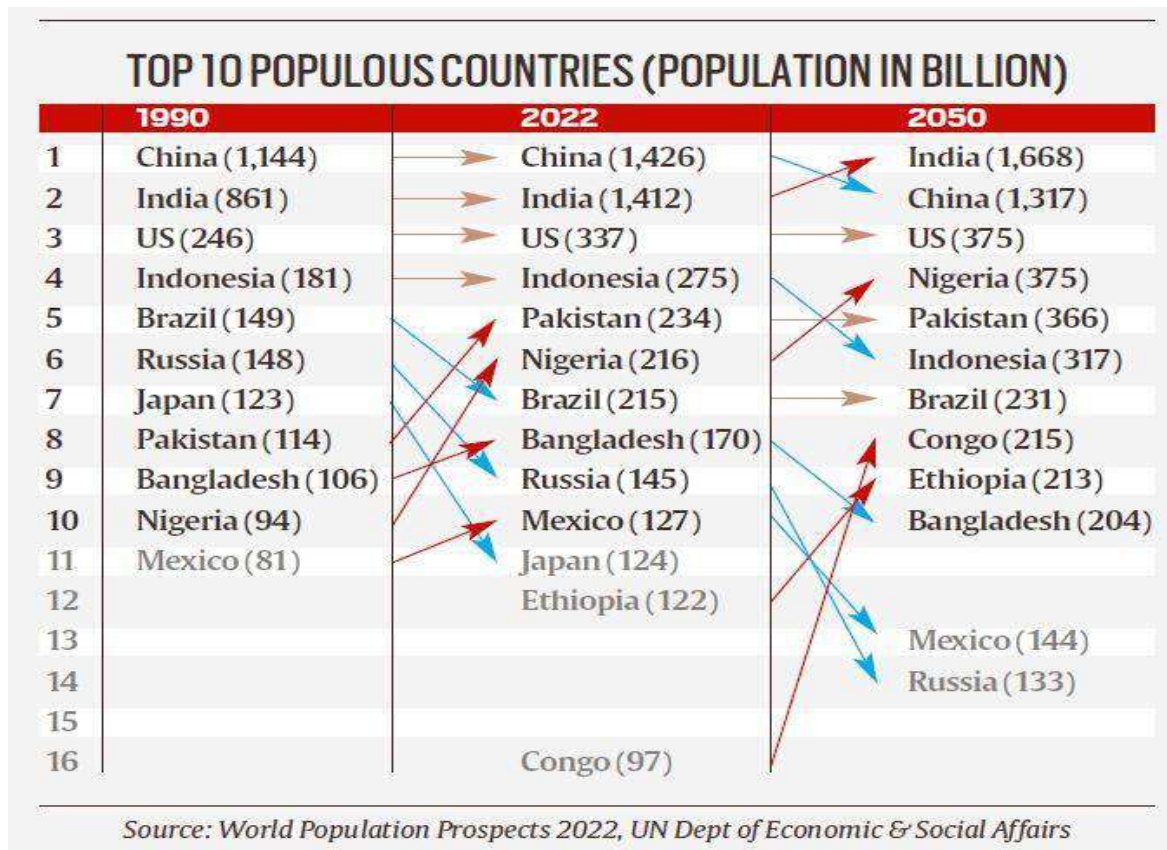
- It took 123 years for the population to double to 2 billion in 1927. The last one billion were added in 11 years.

Findings:

1. India is projected to surpass China as the world's most populous country in 2023.

Note: In 2022, China remains the most populous country in the world with 1,426 million, but India has caught up with a marginally less population of 1,412 million.

2. The global population will reach 8 billion on November 15, 2022, more than three times the population of 2.5 billion in 1950.
3. The UN report finds that in 2020, for the first time since 1950, the rate of population growth fell below 1 per cent per year and it is projected to continue to slow in the next few decades and through the end of this century.
4. The UN projections say that by 2050, India's population will reach 1,668 million, far exceeding China's declining population at 1,317 million. The global population by 2050 would have touched 9.7 billion.



Note: In India, where National Family Health Survey 5 released last year it was found that India attained a Total Fertility Rate (TFR) of 2.0 for the first time, less than the replacement level of 2.1, and falling from a TFR of 2.2 in NFHS 4.

5. Globally, life expectancy reached 72.8 years in 2019, an increase of almost 9 years since 1990, longevity of around 77.2 years globally in 2050. The share of the global population aged 65 years or above is projected to rise from 10% in 2022 to 16% in 2050.
6. More than **half** of the projected increase in global population up to **2050** will be concentrated in just eight countries: **the Democratic Republic of the Congo, Egypt, Ethiopia, India, Nigeria, Pakistan, the Philippines and the United Republic of Tanzania.**
7. International migration is having important impacts on population trends for some countries: For high-income countries between 2000 and 2020, the contribution of international migration to population growth (net inflow of 80.5 million) exceeded the balance of births over deaths (66.2 million).
- The 2019 World Population Prospects report had said that India would overtake China by 2027. So, we knew that India was going to overtake China in a matter of a few years. If we look at it over the last 50

years, India's growth rate stood at 2.3 per cent in 1972, which has dropped down to less than 1 per cent now.

1.4 Global gender gap report,2022

Released by WEF.

India's rank: 135/146.

Top rank: Iceland.

Four dimensions are looked at:

1. Economic participation and opportunity:

% of women in labour force.

Wage equality.

Income.

Rank: 143/146.

2. Political empowerment:

% of women in parliament.

% of women ministers.

Rank:48/146.

3. Education attainment:

Literacy rate, enrolment rate

Rank: 107/146.

4. health and survival:

Sex ratio, healthy life expectancy.

Rank: 146/146.

1.5 The World Drugs Report 2022

- Released by UN Office on Drugs and Crimes.
- World Drugs report emphasizes on the importance of galvanizing international community, civil society, governments, and all stakeholders for undertaking the urgent action to protect people.
- It also looks into drug supply, drug prevention and use.

Findings:

1. Expansion of synthetic drugs such as cocaine.
2. As per report; around 284 million people worldwide, in age group of 15-64, used drugs in 2020

3. In Africa and Latin America, majority of the people aged under 35 are being treated for drug use disorders.
4. 2 million people globally were injecting drugs. About half of this number suffered with Hepatitis C, 1.4 million with HIV, and 1.2 million with HIV & hepatitis C.
5. Cannabis legalization in North America has increased its daily use. With the increasing use, people are facing psychiatric disorders, suicides and hospitalizations. Legalization has also increased tax revenues.

1.6 Global Liveability Index

- Published by The Economist Intelligence Unit.
- Ranks 173 cities based on urban quality of life based on stability, healthcare, culture, education, environment, and infrastructure.
- Vienna has topped the ranking followed by **Copenhagen**.
- Among the least 10 liveable cities, Tehran, Karachi, Dhaka and Lagos have been listed.

Indian cities:

Delhi- 140

Mumbai-141

Chennai-142

Ahmedabad-143

Bengaluru-146

- The scale consists of stability, culture and environment, healthcare and infrastructure, education.
- In May 2022, Indian Government had published the “Ease of Living Index”.
- In this index, Bengaluru was ranked as the most liveable city among 111 cities. Pune, Ahmedabad, Chennai and Surat followed Bengaluru in the index.
- In “million-plus population category”, 49 cities were listed. Out of which, Delhi was ranked at 13th place Srinagar was at the bottom.

1.7 Beti Bachao Beti Padhao(BBBP)

- It is a Centre’s flagship programme launched in 2015 for women’s empowerment; it focuses on education of girl child and improving sex ratio.
- The programme is operational in **405 districts** at present. It has been extended to the entire country by the ministry of women and child welfare.
- Committee on empowerment of women headed by Dr Heena Vijaykumar Gavit was tabled in the Lok Sabha. It had a special reference on Beti Bachao Beti Padhao.
- It stated that nearly 80 per cent funds for the BBBP scheme has been used for advertising, and not on sectoral interventions such as women’s health and education.
- The committee had said that the scheme’s performance in states has not been “up to the mark” and expressed “dismay” at under-utilisation of funds.

- This scheme is part of an umbrella scheme called **Mission Shakti**.

Mission Shakti:

- It is an integrated women empowerment programme. It was launched as an umbrella scheme for the safety, security and empowerment of women.
- It was launched during the 15th Finance Commission(2021-2025)

Mission Shakti's components are:**Sambal:**

- It is for Safety and Security of Women. It comprises of schemes of One Stop Centre (OSC), Women Helpline (WHL), Beti Bachao Beti Padhao (BBBP), with a new component of Nari Adalats.

Samarthya:

- It is for Empowerment of Women. It comprises of erstwhile schemes of Ujjwala, Swadhar Greh and Working Women Hostel which have been included with modifications.
- Also, National Creche Scheme for children of working mothers and Pradhan Mantri Matru Vandana Yojana (PMMVY) under umbrella Integrated Child Development Services (ICDS) have now been included in Samarthya.
- Gap Funding for Economic Empowerment, a new component is also a part of the **Samarthya Scheme**.

According to the guidelines, the Ministry has now targeted:

- 1) Improvement in the Sex Ratio at Birth (SRB) by 2 points every year
 - 2) Improvement in the percentage of institutional deliveries at 95 per cent or above
 - 3) 1 per cent increase in 1st Trimester ANC Registration per year
 - 4) 1 per cent increase in enrolment at secondary education level and skilling of girls and women per year, to check dropout rate among girls at secondary and higher secondary levels and raising awareness about safe menstrual hygiene management.
- The scheme will also look at increasing girls' participation in sports by identifying talent and linking them with appropriate authorities under 'Khelo India'.
 - The Ministry also plans to strengthen One-Stop Centres (OSCs), set up to help women facing violence, including domestic violence and trafficking, by adding 300 OSCs in districts which either have a high rate of crimes against women or are geographically large, preferably in aspirational districts.
 - The toll-free, 24-hour women's helpline, **181**, will be merged with the Emergency Response Support System, and other platforms such as **1098** child line and NALSA, will also be connected to OSCs.
 - The Ministry has further introduced a new component — Nari Adalat — for providing women with an alternate grievance redress mechanism to resolve cases of petty nature (harassment, subversion, curtailment of rights or entitlements) at gram panchayat-level, which will be implemented in a phased manner.

1.8 The Goods and Services Tax (GST) Day

- It is observed annually on **July 1**, in India.
- GST was launched on intervening night of June 30 and July 1, 2017, in a ceremony held in the central hall of Parliament.

What is GST?

- GST is an indirect, multi-stage, consumption-based tax system. It subsumes several domestic indirect taxes like service tax, purchase tax, value-added tax, excise duty, and others under one head. However, items including petroleum, liquor, and stamp duty have not been added to GST. These items follow the old tax system.

Three taxes under GST

- There are three taxes applicable under the GST namely, CGST, SGST, and IGST. Central government collects CGST on intra-state sale. On the other hand, SGST is collected by state government on intra-state sale. Central government collects IGST on an inter-state sale.

Tax Slabs under GST

- Currently, there are four tax slabs under GST viz. 5 %, 12 %, 18 %, and 28 %.
- Main objective of GST laws is to eliminate the cascading effect of taxes. It is also aimed at expanding the base of taxpayer in India by simplifying taxation process.

1.9 National Doctors Day-July 1

- The day is observed in honour of a great pioneer and a visionary doctor, Bidhan Chandra Roy. His accomplishments are mind-boggling- he was an eminent physician, an excellent social worker, and the Chief Minister of West Bengal.
- BC Roy established medical institutions of eminence, the Indian Medical Association in 1928 and the Medical Council of India. He also helped in establishing the Indian Institute of Mental Health, Chittaranjan Cancer Hospital, Chittaranjan Seva Sadan, the Infectious Disease Hospital, and Kolkata's first-ever postgraduate medical college.
- BC Roy was born on July 1, 1882 at Bankipore in Bihar to a family that raised the banner of revolt against the Mughal Emperor, Akbar.
- BC Roy completed his studies in arts with honors degree in Mathematics in 1901 from Patna College. He joined Calcutta Medical College on June 1, 1901. He also obtained degrees in both medicine and surgery from Great Britain.
- Bidhan Chandra Roy entered into politics in 1923 elections defeating the 'Rashtra Guru' Surendra Nath Banerjee. He also led the Civil disobedience movement which began in 1930 in Bengal. Though an outsider to the world of politics, BC Roy understood the aspirations, thoughts, and sufferings of common people.

- During his time as a politician, he pledged to improve the condition of tenants, protect them against the tyranny of zamindars, solve problems related to public health and medical relief.
- Dr. Roy became the Chief Minister of West Bengal in 1948 until his death in 1962, during which he transformed a troubled partitioned West Bengal into one of the foremost States in the country.
- Dr. Roy was honored with India's highest civilian award Bharat Ratna in 1961.

1.10 International Day of Cooperatives 2022

- Observed on July 2, this year. This year will mark the 100th International Day of Cooperatives.

Theme: "Cooperatives Build a Better World."

- The United Nations General Assembly (UNGA) passed a resolution on 16 December 1992 to declare the first Saturday of July 1995 as the International Day of Cooperatives. The date was chosen as it marked the centenary of the International Cooperative Alliance's establishment. It is also called Coops Day.
- It was first observed by ICA in 1923.
- Cooperatives can be defined as people-led enterprises owned, controlled and run by and for their members to achieve a common economic, social, and cultural goal.
- Scotland is known to be the place where the earliest recorded co-operative was formed. A group of 28 artisans working in the cotton mills in the north of England established the first modern co-operative business in 1844. The International Cooperative Alliance, founded in **1895**, is one of the oldest non-governmental organisations and one of the largest ones measured by the number of people represented, which is 1.2 billion cooperative members.
- Co-operatives are significant as it gives citizens a chance to come together and effectively improve their lives while contributing to the economic, social, cultural and political advancement of their community and nation. Since they are community-based, cooperatives are committed to the sustainable development of their respective communities, environmentally, socially and economically.

1.11 World Zoonoses Day

- It is celebrated on July 6.
- It is observed to bring awareness related to Zoonotic diseases.
- It is observed in the honour of Louis Pasteur. He was a French biologist. He administered the first rabies vaccine to Joseph Meister on July 6, 1885.

What are Zoonotic Diseases?

- Zoonotic diseases originate among animals and infect humans as well. Infections occur via contact of bodily fluid or bites of the infected animal.
- Ex: Rabies, Swine flu, Zika & Ebola viruses, plague, dengue, chikungunya, Japanese encephalitis and Covid-19.
- Bacterial zoonoses is treated by consuming antibiotics like aminoglycosides, fluoroquinolones, macrolides and beta-lactams.

- Antibiotic resistance is a major cause of concern.

1.12 World Population Day

- It is celebrated on July 11 annually, across the world. The day seeks to raise awareness on global population issues.

Theme:

- “A world of 8 billion: Towards a resilient future for all – Harnessing opportunities and ensuring rights and choices for all”.
- United Nations development Programme started observing the “World Population Day” in 1989.
- This decision was taken after the global population reached 5 billion-mark on July 11, 1987.

1.13 World Kiswahili Language Day

- Celebrated on **July 7**.
- It was adopted during 41st session of UNESCO on November 23, 2021.
- Kiswahili language (also known as Swahili) is widely spoken in Africa and sub-Saharan Africa. It is the only African language, to become the official language of African Union.
- It is also the first African language that United Nations has recognized in this manner.

1.14 Electoral bonds

- The Union Government authorised the State Bank of India (SBI) for issue of and encashing Electoral Bonds through its 29 Authorised Branches.
- Electoral bonds are instruments through which anyone can donate money to political parties.

Validity: 15 days.

- The identity of the donor is not revealed.
- The party is allotted a verified account by the Election Commission of India (ECI) and the electoral bond are transacted through this account only.

Who can receive?

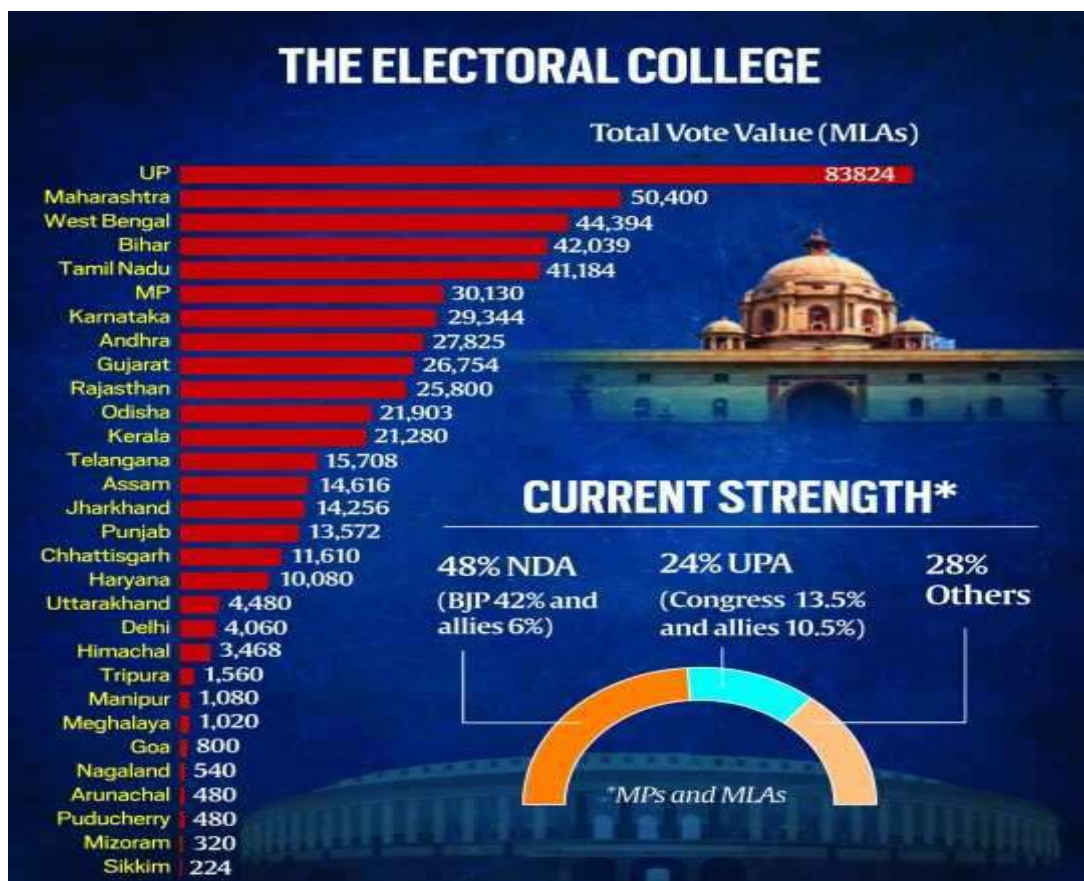
- If any party that is registered under section 29A of the Representation of the Peoples Act, 1951 and has got at least 1% of the votes polled in the most recent General elections or Assembly elections then it can receive electoral bonds.
- The bonds are sold by the authorized branches of SBI. Bonds can be purchased in the denominations of Rs 1,000, Rs 10,000, Rs 1 lakh, Rs 10 lakh and Rs 1 crore. There is no maximum limit for purchasing bonds.
- The bonds can be purchased by any citizen of India. It can be purchased for a period of ten days each in the months of January, April, July and October or as specified by the Government.

1.15 How a President is elected

- Article **62(1)** of the Constitution, “an election to fill a vacancy caused by the expiration of the term of office of President shall be completed before the expiration of the term”.
- On July 18, elected MLAs and MPs across the country will elect the 15th President of India.
- Under Article 324 of the Constitution of India, the authority to conduct elections to the Office of President is vested with the Election Commission of India.

Election process:

- The President is elected by an electoral college consisting of MPs of both Houses of Parliament and MLAs of the states and Delhi and Puducherry.
- Nominated members of Rajya Sabha, Lok Sabha and the Assemblies, and members of State Legislative Councils, are not part of the electoral college.
- The votes are weighted, their value determined by the population of each state as per Census 1971. The value of each MLA’s vote varies from a high of 208 in Uttar Pradesh to a low of 7 in Sikkim.
- This means that UP’s 403 MLAs contribute $208 \times 403 = 83,824$ votes to the electoral pool, while Sikkim’s 32 MLAs contribute $32 \times 7 = 224$ votes. The weighted votes from all the Assemblies add up to 5.43 lakh.
- The process demands that the 776 MPs (543 in Lok Sabha, 233 in Rajya Sabha) should contribute the same total of votes as the MLAs. Thus, the value of each MP’s vote is 5.43 lakh divided by 776, rounded off to 700. The combined electoral pool from the Assemblies and Parliament adds up to 10.86 lakh.



1.16 New nominations to Rajya Sabha

- On July 6, 2022, four new nominations were made to the Rajya Sabha.

The four nominations include:

- **Ilayaraja**, who is the music maestro from Tamil Nadu(He received Padma Bhushan in 2010 and Padma Vibhushan in 2018).
- **P T Usha**, who is a sports icon from Kerala (“Payyoli Express”).
- **V Vijayendra Prasad**, who is an acclaimed screenwriter from Karnataka.
- **Veerendra Heggade**, who is philanthropist and a spiritual leader (“Dharmadhikari” in Dharmasthala Temple).

Important points:

In Rajya Sabha, there are a total of 245 members.

- Out of them, President of India nominates 12 members, on the recommendation of the Government. Nominations are made in accordance with Article 80(3) of the Constitution.
- Nominated member can join a political party, within six months of taking the nominated seat.

2. INTERNATIONAL RELATIONS

2.1 India-Uzbekistan Relations

- Recently, the Union Minister for Commerce & Industry attended the 13th Session of the India-Uzbekistan Inter-Governmental Commission.
- Further, he highlighted India-Uzbekistan relations as key to India's vision of integrated extended neighbourhood.
- IGC meeting is an important platform to deliberate on ideas, discuss issues & strengthen bilateral relations especially in the field of trade & investment.

What are the Key Highlights of the Session?

Minister Highlighted:

- That there is a need to take the relationship forward in newer areas like technology, digital payment solutions, and investment in start-ups.
- The need for an integrated approach for regional connectivity and cooperation. Further, there are seven emerging areas of cooperation between both nations namely Digital Payments, Space Cooperation, Agri and Dairy, Pharma, Gems and Jewellery, MSME, and Inter-regional cooperation.



How has been India-Uzbekistan Relations?

About:

- India and Uzbekistan have a long history of cooperation.
- After Uzbekistan's independence, India was one of the first countries to acknowledge its state sovereignty.
- Bilateral relations now encompass a wider canvas, including political and strategic issues, defense and security, trade and investment, energy, agriculture, S&T, education, and people-to-people ties.

Initiatives:**Defense Cooperation:**

- The first-ever joint military exercise held between India and Uzbekistan was named Dustlik.
- India has also assisted in setting up an India Room at the Armed Forces Academy of Uzbekistan in Tashkent.

Security Cooperation:

- India and Uzbekistan share common perspectives on a number of security issues, including terrorism, trans-national organized crime, illegal trafficking, smuggling, etc.
- The main focus of engagement in this sphere has been to provide assistance to Uzbek security agencies through training and capacity building.

Trade:

- It has increased from USD 247 million in 2019-20 to USD 342 million in 2021-22, a growth of 38.5%.

Investments:

- Indian investments by Indian companies include those in the field of pharmaceuticals, amusement parks, automobile components, and the hospitality industry.
- Amity University and Sharda University have opened campuses in Tashkent and Andijan respectively.
- Indian institutions like iCreate are actively cooperating with Uzbek counterparts for promoting a start-up ecosystem in Uzbekistan and training entrepreneurs in setting up incubators.

Tourism:

- The Uzbek government has extended the e-Visa facility to Indian tourists. Uzbekistan has also emerged as a significant source of medical tourism with about 8,000 Uzbeks annually seeking medical treatment in India.

Solar Power:

- Uzbekistan has expressed interest in joining the International Solar Alliance. There is interest in Indian participation in the development of the solar power sector through competitive bidding.

Bilateral Mechanism:

- National Coordination Committees: India and Uzbekistan have set up National Coordination Committees to oversee the implementation of mutually agreed projects and initiatives.

Multilateral Initiatives:

- India-Central Asia Business Council: The dialogue brought together Business Councils of all five Central Asian countries to take the trade and investment partnership forward with a special focus on energy, pharmaceuticals, automotive, agro-processing, education, and urban infrastructure, transport, civil aviation, IT and tourism.

India- Central Asia Dialogue:

- It enables the issues of further strengthening ties between India and the countries of Central Asia in the spheres of politics, economics, digitalization, and cultural and humanitarian direction.

What are the Challenges in India-Uzbekistan Relations?

- There is a very low amount of trade and commerce between the two countries.
- Lack of connectivity, as Uzbekistan is a landlocked country, and the air connectivity is not up to the mark.
- China has made in-roads with Belt and Road Initiative in all the central Asian countries including Uzbekistan.

Way Forward

- Indian companies can take advantage of Uzbekistan's various trade agreements and implement joint beneficial investment projects in the area to tap the economic and trade potential of the two countries.
- There is a need for increased convergence between the two countries.
- Uzbekistan should join the International North-South Transport Corridor (INSTC). With both Iran and India as members of INSTC, the addition of Uzbekistan will move things, especially connectivity, in the proper direction.

2.2 From Non Alignment to Multi Alignment

- While the Cold War (US-USSR) was raging and shaking international politics, in the initial two decades following India's independence, India's foreign policy was heavily determined by the policy of non-alignment, which later became a full-fledged movement and forum of discussion in 1961 (Non Alignment Movement).
- But today, India skillfully maneuvers between China-led or Russia-led groupings such as the BRICS and the Shanghai Cooperation Organization (SCO), along with its involvement in US-led groupings such as the Quadrilateral Security Dialogue (Quad), in which Japan and Australia are also members.
- In order to understand the practicality of multi-alignment, we need to flip back a few pages of history to understand the non-alignment approach first.

What is the History of Non-Alignment in India?

- The Non-Aligned Movement (NAM) was created and founded during the collapse of the colonial system and the independence struggles of the peoples of Africa, Asia, Latin America and other regions of the world and at the height of the Cold War.
- In 1960, it was at the fifteenth ordinary session of the United Nations General Assembly that the Movement of Non-Aligned Countries was created, resulting in the admission of 17 new African and Asian members.

- The then Prime Minister Jawahar Lal Nehru also promoted the concept of 'non- alignment', or equidistance of the 'third world' from the two superpowers of the Cold War. These concepts found their way to the Bandung Conference of 1955.
- The primary objectives of the non-aligned countries focused on the support of self- determination, national independence and the sovereignty and territorial integrity of States, non-adherence to multilateral military pacts.
- By the end of the 1980s, the Movement was facing the great challenge brought about by the collapse of the socialist block. The end of the clash between the two antagonistic blocks that was the reason for its existence, name and essence was seen by some as the beginning of the end for the Movement of Non- Aligned Countries.

What is India's New Multi-Alignment Approach?

Multi-Alignment:

- It is a series of parallel relationships that strengthen multilateral partnerships and seek a common approach among the grouping towards security, economic equity and the elimination of existential dangers like terrorism. Below are a few forums where India's Multi-Alignment Approach is clearly evident:

International North-South Transport Corridor (INSTC):

- A 7,200-kilometer multi-modal transport corridor that combines road, rail and maritime routes, connecting Saint Petersburg (Russia) to Mumbai.
- International North-South Transport Corridor offers a platform for India to collaborate with Russia, Iran, and the Central Asian Republics towards fostering a Eurasian Free Trade Area.
- Once fully operational, INSTC is expected to reduce freight costs by 30% and the journey time by 40% compared to the deep-sea route via the Suez Canal.

BRICS:

- BRICS is an acronym for the grouping of the world's leading emerging economies, namely Brazil, Russia, India, China and South Africa, seeks for economic, political and security cooperation including people-to-people exchange through a well- planned mechanism.
- India was instrumental in co-founding the New Development Bank (NDB), a new multilateral initiative expected to rival the World Bank.

Shanghai Cooperation Organization:

- SCO is a Eurasian political, economic and military organization aiming to maintain peace, security and stability in the region.

Membership:

- Kazakhstan, China, Kyrgyzstan, Russia, Tajikistan, Uzbekistan, India and Pakistan.

- Iran and Belarus are likely to be the two newest additions.
- From SCO, China and Russia are looking to counter the West, especially the expansion of NATO (North Atlantic Treaty Organization).

Quadrilateral Security Dialogue:

- QUAD is the informal strategic dialogue between India, USA, Japan and Australia with a shared objective to ensure and support a “free, open and prosperous” Indo-Pacific region and counter China.

What is India’s Current Foreign Policy?

- **Sammaan:** Respect for every nation’s sovereignty
- **Samvaad:** Greater engagement with all countries.
- **Suraksha:** Security; India is a responsible power-neither aggression nor adventurism exists in its DNA
- **Samriddhi:** Shared prosperity
- **Sanskriti and Sabhyata:** The persuasive reach of cultural values anchored in a philosophy which believes that the world is a family.

What are the Contemporary Challenges for India’s Foreign Policy?**Growing Russia-China Axis:**

- Russia has become increasingly interested in its periphery's affairs. Furthermore, sanctions imposed after the annexation of Crimea have pushed it towards a closer relationship with China that can certainly deflect its interest in India.

Self-Imposed Isolation of India:

- Currently, India remains isolated from supranational bodies like South Asian Association for Regional Cooperation (SAARC). Moreover, India has opted out of the Regional Comprehensive Economic Partnership (RCEP).
- Self-imposed isolation does not fit with India's ambition to become a global power. Weakening Ties with Neighbors: A more worrying concern for Indian foreign policy is weakening ties with the neighbors. This can be seen from instances like China’s Cheque Book Diplomacy vis-a-vis Sri Lanka and Pakistan, strain in relation with Bangladesh on National Register of Citizens (NRC) issue and a border dispute with Nepal.
- Thus instead of looking towards development of the country, India is forced to invest heavily in security.

What should be the Way Forward?**Strengthening Ties with Neighbors:**

- India should make valiant efforts to improve relations with some of its neighbors such as Bangladesh, Myanmar, and Sri Lanka.

- In this context, India can look forward to extending more diplomatic policies like "vaccine diplomacy" under its Neighbourhood First Policy with neighbors, which supplied vaccines for free or at affordable prices in 2021.

Thinking beyond Geo-Political:

- It is imperative to expand the focus of India's foreign policy agenda beyond the traditional thinking of geopolitical boundaries to address issues such as regulatory oversight of trans-boundary digital giants, big data management, trade issues and disaster relief.

G20 in 2023:

- India's presidency of G20 in 2023 will give it the chance to weave geoeconomic themes with geopolitical interests. Until now, India has played the role of an emerging power trying to become a global power. The G20 summit of 2023 will allow India to articulate and be proactive on issues that matter to the world.

Conclusion

- Therefore, a multi-alignment approach preserving certain prominent values of non- alignment is good for India's interests and advancing towards "Vasudeva Kutumbakam".

2.3 India Maldives Relations

- Recently, the Prime Minister of India held bilateral talks with the visiting Maldives President.
- The Prime Minister while highlighting the threat of transnational crime, terrorism and drug trafficking in the Indian Ocean said that the coordination between India and Maldives in the field of defence and security is vital for peace and stability.



What are the Outcomes of the Bilateral Talks?

Security:

- To counter the threat of transnational crime, terrorism and drug trafficking in the Indian Ocean region, India will give 24 vehicles and one naval boat to the Maldives Security Force and help train the island-nation's security personnel.

- India will also cooperate in building police facilities in 61 islands of Maldives.

Male connectivity project:

- The two leaders also welcomed the launch of the Greater Male Connectivity Project, a USD 500 million project funded by New Delhi.
- Both leaders participated in the virtual “pouring of the first concrete” ceremony of the USD500-million Greater Male Connectivity Project, being built under grant and concessional loan support from India.

Agreements:

- The countries signed six agreements to expand cooperation in a range of areas in Maldives, including: Cybersecurity Capacity Building Housing Disaster Management Infrastructure Development
- India announced USD100 million financial aid to help the island-nation complete certain infrastructure projects.

How has India’s Relations with Maldives been?**Security Partnership:**

- Recently, the National College for Policing and Law Enforcement (NCPL) was inaugurated by India’s External Affairs Minister during his two day visit to Maldives in 2022.

Rehabilitation Centre:

- Signing of an USD80-million contract for the Addu reclamation and shore protection project.
- A drug detoxification and rehabilitation centre in Addu built with Indian assistance. The centre is one of 20 high impact community development projects being implemented by India in areas such as healthcare, education, fisheries, tourism, sports and culture.

Economic Cooperation:

- Tourism is the mainstay of Maldivian economy. The country is now a major tourist destination for some Indians and a job destination for others.
- In August 2021, Afcons, an Indian company, signed a contract for the largest-ever infrastructure project in Maldives which is the Greater Male Connectivity Project (GMCP).
- India is Maldives 2nd largest trading partner – rising up from its 4th position in 2018.
- In 2021, bilateral trade registered a growth of 31% over the previous year – overcoming the pandemic-related challenges.

What are the Challenges in India Maldives Relations?**Political Instability:**

- India’s major concern has been the impact of political instability in the neighbourhood on its security and development.

- The February 2015 arrest of Maldives' opposition leader Mohamed Nasheed on terrorism charges and the consequent political crisis have posed a real diplomatic test for India's neighbourhood policy.

Radicalisation:

- In the past decade or so, the number of Maldivians drawn towards terrorist groups like the Islamic State (IS) and Pakistan-based jihadist groups has been increasing.
- This gives rise to the possibility of Pakistan based terror groups using remote Maldivian islands as a launch pad for terror attacks against India and Indian interests.

China Angle:

- China's strategic footprint in India's neighbourhood has increased. The Maldives has emerged as an important 'pearl' in China's "String of Pearls" construct in South Asia.
- Given the uncertain dynamics of Sino-Indian relations, China's strategic presence in the Maldives remains a concern.
- Also, the Maldives have started using the China card to bargain with India.

Way Forward

- Although India continues to be an important partner of the Maldives, India must not grow complacent over its position and must remain attentive to the developments in the Maldives. India must play a key role within Indo-Pacific security space to ensure regional security in South Asia and surrounding maritime boundaries.
- The Indo-Pacific security space has been developed as a response to the growth of extra-regional powers (particularly China's) in India's maritime sphere of influence. At present, the 'India Out' campaign has support from a limited population but this cannot be taken for granted by the Indian government.
- If the issues raised by the supporters of the 'India Out' are not handled carefully and India does not effectively convince the Maldivians about its intentions behind the projects on the island nation, the campaign may change the domestic political situation in the Maldives and may set ripples in India's currently favourable relationship with the country.

2.4 Critical Minerals Alliance

- There is growing concern in the Government over India not finding a place in the Minerals Security Partnership.
- Minerals Security Partnership is an ambitious new US-led partnership to secure supply chains of critical minerals, aimed at reducing dependency on China.
- Demand for critical minerals, which are essential for clean energy and other technologies is projected to expand significantly in the coming decades.

What are Critical Minerals?

About:

- Critical minerals are elements that are the building blocks of essential modern-day technologies and are at risk of supply chain disruptions.
- These minerals are now used everywhere from making mobile phones, computers to batteries, electric vehicles and green technologies like solar panels and wind turbines.

Major Critical Minerals:

- Graphite, Lithium and Cobalt are used for making EV batteries.
- Aerospace, communications and defence industries also rely on several such minerals as they are used in manufacturing fighter jets, drones, radio sets and other critical equipment.
- While Cobalt, Nickel and Lithium are required for batteries used in electric vehicles, rare earth minerals are critical, in trace amounts, in the semiconductors and high-end electronics manufacturing.

Significance:

- As countries around the world scale up their transition towards clean energy and digital economy, these critical resources are key to the ecosystem that fuels this change.
- Any supply shock can severely imperil the economy and strategic autonomy of a country over-dependent on others to procure critical minerals.

What is Minerals Security Partnership (MSP)?

About:

- It is an initiative by the United States to bolster critical mineral supply chains.

Partners:

- Australia, Canada, Finland, France, Germany, Japan, the Republic of Korea, Sweden, the United Kingdom, the United States, and the European Commission.

Objective:

- The goal of the MSP is to ensure that critical minerals are produced, processed, and recycled in a manner that supports the ability of countries to realize the full economic development benefit of their geological endowments.
- Focus would be on the supply chains of minerals such as Cobalt, Nickel, Lithium and also the 17 “rare earth” minerals.

Significance:

- The MSP will help catalyze investment from governments and the private sector for strategic opportunities across the full value chain that adhere to the highest environmental, social, and governance standards.

Why Exclusion from MSP is a Concern for India?

Supply of Critical Minerals:

- One of the key elements of India's growth strategy is powered by an ambitious shift in the mobility space through the conversion of a large part of public and private transport to electric vehicles.
- This, alongside a concerted electronics manufacturing push, underlines the need to secure the supply of critical minerals.

Dependency on Other Countries:

- Rare earth comprises seventeen elements and are classified as light RE elements (LREE) and heavy RE elements (HREE).
- Some RE are available in India such as Lanthanum, Cerium, Neodymium, Praseodymium and Samarium, while others such as Dysprosium, Terbium, Europium that are classified as HREE are not available in Indian deposits in extractable quantity.
- India would require supply support for such elements.

Technology Status:

- Industry watchers say that one reason India would not have found a place in the grouping is because the country does not bring much expertise to the table.
- In the group, countries like Australia and Canada have reserves and also technology to extract them and countries like Japan have the technology to process them.

What has India done regarding Critical Minerals?

Lithium Agreement:

- In mid-2020, India, through a newly floated state-owned company, had signed an agreement with an Argentinian firm to jointly prospect lithium in the South American country that has the third largest reserves of the metal in the world.

India-Australia Critical Minerals Investment Partnership:

- India and Australia decided to strengthen their partnership in the field of projects and supply chains for critical minerals.
- Australia has the resources to help India fulfil its ambitions to lower emissions and meet the growing demand for critical minerals to help India's space and defence industries, and the manufacture of solar panels, batteries and electric vehicles.

2.5 Power Grab in Tunisia

- Recently, protests have erupted in Tunisia after a referendum was passed to approve a new Constitution that would turn the country back into a Presidential System.



Why have Protests Erupted?

- Turning the country back into a Presidential System will institutionalize the one-man reign of President Kais Saied, who suspended the elected Parliament and awarded more powers to himself in 2021.
- Protestors have warned that the new Constitution would erase whatever democratic gains Tunisia has made since the 2011 Arab Spring (Jasmine) revolution and push the country back into an authoritarian slide.

What do we know about the Arab Spring?

About Arab Spring:

- Arab Spring, wave of pro-democracy protests and uprisings that took place in the Middle East and North Africa beginning in 2010 and 2011, challenging some of the region's entrenched authoritarian regimes.
- The wave began when protests in Tunisia and Egypt toppled their regimes in quick succession, inspiring similar attempts in other Arab countries.
- Not every country saw success in the protest movement, however, demonstrators expressing their political and economic grievances were often met with violent crackdowns by their countries' security forces.

Tunisia:

- Among the countries that saw popular protests bringing down dictatorships in 2011, Tunisia was the only one that witnessed a successful transition to democracy. The Arab Spring protests began in Tunisia

in December 2010, leading to the fall of the regime of Zine El Abidine Ben Ali, who had been in power since 1987.

- It was also known as Jasmine Revolution in Tunisia.
- Ben Ali had to flee the country in the face of the mass uprising.
- Quickly, protests spread to other Arab countries such as Egypt, Libya, Bahrain, Yemen and Syria. Egypt: While protesters brought down the 30-year-long dictatorship of Hosni Mubarak in Egypt, the revolution did not last long in that country.
- In 2013, the military seized power toppling the elected government of President Mohammed Morsi, a Muslim Brotherhood leader.
- In Libya, the protests against Mohammar Gaddafi slipped into a civil war, which saw a military intervention by the North Atlantic Treaty Organisation (NATO).
- The NATO intervention toppled the Gaddafi regime (the Libyan leader was later assassinated), but the country fell into chaos and anarchy, which continue to haunt it even today.

Other Countries:

- In Bahrain, the Shia majority country ruled by a Sunni monarchy, neighbouring Saudi Arabia sent troops to crush protests in Manama's Pearl Square.
- In Yemen, President Ali Abdullah Saleh had to relinquish power, but the country fell into a civil war, leading to the rise of the Shia Houthi rebels, who now control capital Sana'a, and the subsequent Saudi attack on the impoverished country.
- In Syria, protests turned into a proxy civil war, with President Bashar al-Assad's rivals backing his enemies, and his allies, including Hezbollah, Iran and Russia, backing the regime.

What is the reason behind the Political Crisis in Tunisia?

Existing System:

- The 2014 Constitution put in place a mixed parliamentary and presidential system.
- Both the President and Parliament were directly elected by the voters.
- The President was to oversee the military and foreign affairs, while the Prime Minister, elected with the support of a majority of lawmakers, was in charge of the day-to-day affairs of governance.

Problems in Tunisia:

- The country had nine governments between 2011 and 2021.
- In the democratic elections, the Islamist Ennahda party, which has ideological links to the pan-Islamist Muslim Brotherhood movement, emerged as a main political force in the country, which upset the secular sections. The polity remained fractious.
- Its economy was already in a bad shape, and the COVID-19 crisis made it worse. Tunisia has one of the highest per capita COVID death rates in the world.

- Amid the mounting economic and healthcare crisis, protests broke out against the government in July last year.
- Protesters stormed the offices of the Ennahda, the ruling party.

Change in Constitution:

- To stop the unrest, Mr. Saied moved in, sacking the Ennahda-backed Prime Minister Hichem Mechich and suspending Parliament, plunging the country into a constitutional crisis.
- Under the 2014 Constitution, such crises should be settled by a constitutional court, but the court had not been formed yet.
- This allowed the President a free hand to rule the country by decrees.
- He declared a state of emergency.
- Appointed a Prime Minister to run the government.
- Dissolved the suspended Parliament earlier this year while simultaneously moving to rewrite the Constitution, awarding himself more powers.

What are the new Changes in Constitution?

- While it leaves most of the personal freedoms guaranteed by the 2014 Constitution intact, the new charter seeks to take the country back to the presidential system, undercutting the powers of Parliament.
- The President will have ultimate authority to:

Form a government

- Name Ministers (without Parliament's approval) Appoint judges
- Present legislation directly to the legislature.
- All the above-mentioned changes would also make it practically impossible for the lawmakers to remove the President from office.

2.6 India-Nepal Relations

- Recently Cabinet approved ₹1236 crore investments for Arun-3 hydro project.
- The project will provide surplus power to India's strengthening economic linkages with Nepal.

Historical Ties

- Nepal is an important neighbour of India and occupies special significance in its foreign policy because of the geographic, historical, cultural and economic linkages/ties that span centuries. India and Nepal share similar ties in terms of Hinduism and Buddhism with Buddha's birthplace Lumbini located in present day Nepal.
- The two countries not only share an open border and unhindered movement of people, but they also have close bonds through marriages and familial ties, popularly known as Roti-Beti ka Rishta.
- The India-Nepal Treaty of Peace and Friendship of 1950 forms the bedrock of the special relations that exist between India and Nepal.

Treaty of Peace and Friendship of 1950

- The treaty talks about reciprocal treatment of Indian and Nepali citizens in the two countries, in residence, property, business and movement.
- It also establishes national treatment for both Indian and Nepalese businesses (ie once imported, foreign goods would be treated no differently than domestic goods).
- It also gives Nepal access to weaponry from India.



- Nepal shares border with 5 Indian states- Uttarakhand, Uttar Pradesh, West Bengal, Sikkim and Bihar. Hence an important point of cultural and economic exchange.
- Importance for India can be studied from two different angles: a) their strategic importance for India's national security; and b) their place in India's role perception in international politics.
- Nepal is right in the middle of India's 'Himalayan frontiers', and along with Bhutan it acts as northern 'borderland' flanks and acts as buffer states against any possible aggression from China. Rivers originating in Nepal feed the perennial river systems of India in terms of ecology and hydropower potential.
- Many Hindu and Buddhist religious sites are in Nepal making it an important pilgrim site for large number of Indians.

Areas of Cooperation

Trade and economy

- India is Nepal's largest trade partner and the largest source of foreign investments, besides providing transit for almost the entire third country trade of Nepal.
- Indian firms engage in manufacturing, services (banking, insurance, dry port), power sector and tourism industries etc.

Connectivity

- Nepal being a landlocked country, it is surrounded by India from three sides and one side is open towards Tibet which has very limited vehicular access.
- India-Nepal has undertaken various connectivity programs to enhance people-to-people linkages and promote economic growth and development.
- MOUs have been signed between both the governments for laying electric rail track linking Kathmandu with Raxaul in India.
- India is looking to develop the inland waterways for the movement of cargo, within the framework of trade and transit arrangements, providing additional access to sea for Nepal calling it linking Sagarmath (Mt. Everest) with Sagar (Indian Ocean).

Development Assistance

- Government of India provides development assistance to Nepal, focusing on creation of infrastructure at the grass-root level.
- The areas assistance include infrastructure, health, water resources, and education and rural & community development.

Defence Cooperation

- Bilateral defence cooperation includes assistance to Nepalese Army in its modernization through provision of equipment and training.
- The Gorkha Regiments of the Indian Army are raised partly by recruitment from hill districts of Nepal.
- India from 2011, every year undertakes joint military exercise with Nepal known as Surya Kiran.

Cultural

- There have been initiatives to promote people-to-people contacts in the area of art & culture, academics and media with different local bodies of Nepal.
- India has signed three sister-city agreements for twinning of Kathmandu-Varanasi, Lumbini- Bodhgaya and Janakpur-Ayodhya.

Humanitarian Assistance

- Nepal lies in sensitive ecological fragile zone which is prone to earthquakes, floods causing massive damage to both life and money, whereby it remains the biggest recipient of India's humanitarian assistance.

Indian Community

- Huge number of Indians lives in Nepal, these include businessmen, traders, doctors, engineers and labourers (including seasonal/migratory in the construction sector).

Multilateral Partnership

- India and Nepal shares multiple multilateral forums such as BBIN (Bangladesh, Bhutan, India, and Nepal), BIMSTEC (Bay of Bengal Initiative for Multi Sectoral Technical and Economic Cooperation) NAM, and SAARC (South Asian Association for Regional Cooperation) etc.

Challenges

- Internal Security is a major concern for India; Indo-Nepal border is virtually open and lightly policed which is exploited by terrorist outfits and insurgent groups from North Eastern part of India eg. supply of trained cadres, fake Indian currency.
- Overtime trust deficit has widened between India-Nepal because of the Indian reputation for delaying implementation of various projects.
- Nepal over the years has witnessed chronic political instability, including a 10-year violent insurgency, damaging Nepal's development and economy.
- There is anti-India feeling among certain ethnic groups in Nepal which emanates from the perception that India indulges too much in Nepal and tinkers with their political sovereignty. The establishment of diplomatic relations between Nepal and China and its growing influence in Nepal has resulted in declining traditional leverage of India in Nepal.

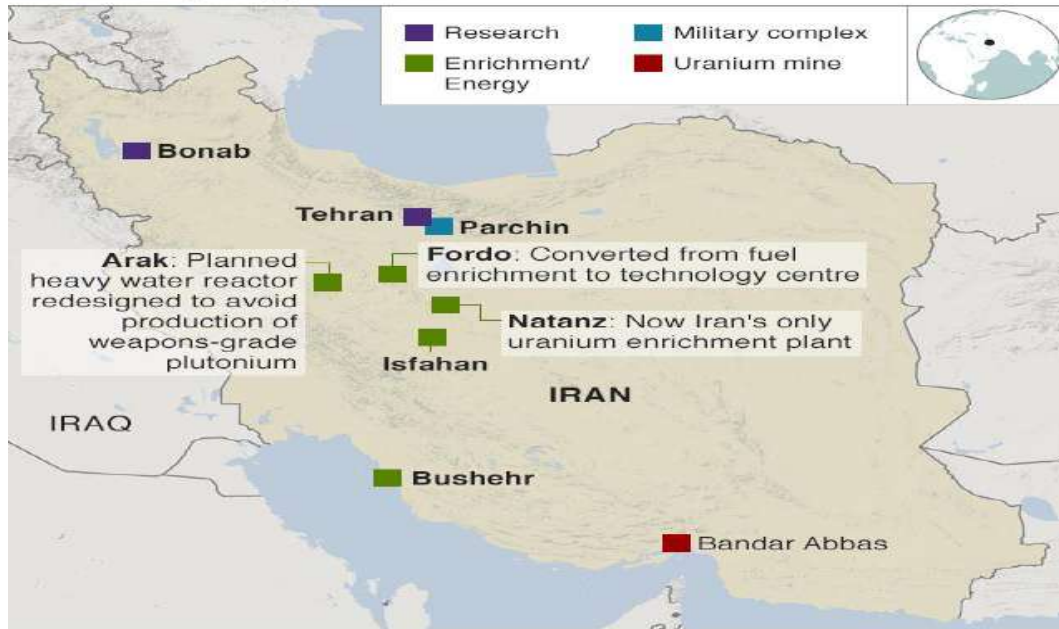
Way Forward

- Both the countries are affected due to the misuse of open border by internal and external forces, the responsibility of border management and regulation depends on both.
- India should provide an alternative narrative for India-Nepal ties, one that takes into account longstanding people-to-people ties and cultural connect.
- India should focus on fructifying the potential of hydropower cooperation, which has remained untapped largely due to differing perceptions.
- India should maintain the policy of keeping away from internal affairs of Nepal, meanwhile in the spirit of friendship India should guide the nation towards more inclusive rhetoric.
- With its immense strategic relevance in the Indian context as Indian security concern, stable.

2.7 Iran Nuclear Deal Talks

- Recently, there has been a fresh round of talks over Iran's nuclear programme in Vienna to revive the 2015 nuclear deal which is also known as the Joint Comprehensive Plan of Action (JCPOA).
- Officials from various countries including Iran were meeting for the first time since March 2022.

Changes agreed under Iran deal to limit nuclear programme



What is the Iran Nuclear Deal?

About:

- The Joint Comprehensive Plan of Action aims to guarantee the civilian nature of Iran's nuclear programme in exchange for a gradual lifting of sanctions.
- Iran signed the agreement with the five permanent members of the U.N. Security Council — the U.S., Russia, France, China, and the United Kingdom — as well as Germany and the European Union.
- Under the deal, Iran agreed to significantly cut its stores of centrifuges, enriched uranium and heavy-water, all key components for nuclear weapons.
- Iran also agreed to implement a protocol that it would allow inspectors from the International Atomic Energy Agency (IAEA) to access its nuclear sites to ensure Iran would not be able to develop nuclear weapons in secret.

Issues:

- Due to the unilateral withdrawal of the United States in 2018 under former president Donald Trump and the re-imposition of U.S. sanctions, Iran has backtracked on its obligations.
- Iran subsequently exceeded the JCPOA's uranium enrichment rate of 3.67%, rising to 20% in early 2021.
- It then crossed an unprecedented 60% threshold, getting closer to the 90 percent needed to make a bomb.

Opposing countries:

- Israel, America's closest ally in the Middle East, strongly rejected the deal, and other countries like Iran's great regional rival Saudi Arabia, complained that they were not involved in the negotiations even though Iran's nuclear programme posed security risks for every country in the region.

What is the significance of JCPOA for India?**Enhance regional connectivity:**

- Removing sanctions may revive India's interest in the Chabahar port, Bandar Abbas port, and other plans for regional connectivity.
- This would further help India to neutralize the Chinese presence in Gwadar port, Pakistan.
- Apart from Chabahar, India's interest in the International North-South Transit Corridor (INSTC), which runs through Iran, and will improve connectivity with five Central Asian republics, may also get a boost.

Energy Security:

- Due to the pressure linked to the US Countering America's Adversaries Through Sanctions Act (CAATSA), India has to bring down oil imports to zero.
- Restoration of ties between the US and Iran will help India to procure cheap Iranian oil and aid in energy security.

Way Forward

- The US would have to factor in not only Iran's nuclear programme but also its increasingly hostile behavior in the region. It would also have to take into consideration the reality of the new multipolar world, in which its unilateral leadership is no longer guaranteed.
- Iran would have to consider the rapidly changing dynamics in the Middle East, given that Israel has recalibrated its relations with several Middle Eastern Arab countries in recent years.

2.8 Ceasefire between Israel and Palestine

- After three days of violence between Israel and Palestine, which resulted in killing of dozens of populations in both the countries, a ceasefire took place recently.
- Earlier this year as well, tensions flared up at Jerusalem's al-Aqsa Mosque between the Palestinians and Israeli police.
- These recurring clashes are part of the ongoing Israeli–Palestinian conflict.



What do we know about the Recent Conflict?

Reason for Conflict:

- Israeli aircraft pummelled targets (Islamic Jihad Leaders) in Gaza.
- In response, Iran-backed Palestinian Jihad militant group fired hundreds of rockets at Israel.
- Islamic Jihad has fewer fighters and supporters than Hamas.

Actions from Israel:

- Israel launched its operation with a strike on a leader of the Islamic Jihad, and followed up on with another targeted strike on a second prominent leader.

Actions from Gaza:

- As per the Israeli army, militants in Gaza fired about 580 rockets toward Israel.
- Israel had intercepted many of them, with two of those shot down being fired toward Jerusalem.

UNSC Meeting:

- The U.N. Security Council scheduled an emergency meeting on the violence. China, which holds the council presidency for August 2022, scheduled the session in response to a request from the United Arab Emirates, which represents Arab nations on the council, as well as China, France, Ireland and Norway.

What is Conflict between Israel and Palestine?

Conflict over Jerusalem:

- Jerusalem has been at the center of the Israeli-Palestinian conflict.
- According to the original 1947 United Nations (UN) partition plan, Jerusalem was proposed to be an international city.
- However, in the first Arab Israel war of 1948, the Israelis captured the western half of the city, and Jordan took the eastern part, including the Old City that houses Haram al-Sharif.
- Following the Six-Day War in 1967, an armed conflict between Israel and a coalition of Arab states primarily comprising Jordan, Syria and Egypt, the Waqf Ministry of Jordan that had till then held control of the al-Aqsa Mosque, ceased to oversee the mosque.
- Israel captured East Jerusalem from Jordan in the Six-Day War 1967 and annexed it later.
- Since its annexation, Israel has expanded settlements in East Jerusalem.
- Israel sees the whole city as its “unified, eternal capital”, whereas the Palestinian leadership across the political spectrum have maintained that they would not accept any compromise formula for the future Palestinian state unless East Jerusalem is its capital.

Recent Developments:

Al-Aqsa Mosque & Sheikh Jarrah:

- In May 2021, Israeli armed forces attacked Al-Aqsa Mosque in the Haram esh- Sharif in Jerusalem, ahead of a march by Zionist nationalists commemorating Israel’s capture of the eastern half of the city in 1967.
- The threatened eviction of dozens of Palestinian families in the East Jerusalem neighborhood of Sheikh Jarrah escalated the crisis further.

West Bank Settlement:

- Israel's Supreme Court has rejected a petition against the eviction of more than 1,000 Palestinian inhabitants of a rural part of the occupied West Bank in an area which Israel has designated for military exercises.
- The judgment paved the way for the demolition of eight small villages in a rocky, arid area near Hebron known to Palestinians as Masafer Yatta and to Israelis as the South Hebron Hills.

India’s Stand on the Crisis:

- India in the recent years has been following a dehyphenation policy between Israel and Palestine.
- India’s policy on the longest running conflict in the world has gone from being unequivocally pro-Palestine for the first four decades, to a tense balancing act with its three-decade-old friendly ties with Israel.
- In 2017, in an unprecedented move, India’s PM visited only Israel and not Palestine.

- Then, the recent visit of the Prime Minister to Palestine (2018), Oman and the UAE is again a continuation of similar policy.

2.9 Airspace Violations near LAC

- Recently, India and China held a special round of military talks on Air space Violations at the Chushul-Moldo border meeting point in Eastern Ladakh.
- The talks were held against the backdrop of the "provocative behaviour" by Chinese fighters flying close to the Line of Actual Control (LAC) often violating the 10-km no-fly zone Confidence Building Measure (CBM).

Why do Such Incidents Keep Happening?

- The LAC is not fully demarcated and there are differences of perception on the alignment due to which such incidents keep happening.
- To maintain peace and tranquillity along the LAC, the two sides regularly hold talks at various levels on the ground.
- Since the stand-off began in eastern Ladakh in May 2020, both sides have forward deployed air assets along the LAC and also augmented bases and air defences.

What is the Picture of India China Recent Conflicts?

- The June 2020 clash in the Galwan Valley - fought with sticks and clubs, not guns - was the first fatal confrontation between the two sides since 1975.
- The most recent conflict was - in January 2021 - left troops on both sides injured. It took place along the border in India's Sikkim state, which is sandwiched between Bhutan and Nepal.
- Lately, the Chinese have been complaining about the IAF upgrading its capability to detect Chinese Air Force aircraft operating within the territory controlled by them in the Tibet region.
- The two sides have been able to resolve three friction points in eastern Ladakh and are holding discussions to find solutions for the Hot Springs area also.
- The two have conducted 16 rounds of Corps commander-level talks to de-escalate the situation and tensions which began after the Chinese tried to alter the status quo on the LAC in 2020.

What is Line of Actual Control?

About:

- The Line of Actual Control (LAC) is the demarcation that separates Indian-controlled territory from Chinese-controlled territory.

AC is different from the Line of Control (LoC) with Pakistan:

- The LoC was designated so in 1972, following the Shimla Agreement between the two countries. It is delineated on a map.

- The LAC, in contrast, is only a concept – it is not agreed upon by the two countries, neither delineated on a map or demarcated on the ground.
- Length of the LAC: India considers the LAC to be 3,488 km long, while the Chinese consider it to be only around 2,000 km.

Sectors Across the LAC:

- **It is divided into three sectors:** the eastern sector which spans Arunachal Pradesh and Sikkim (1346 km), the middle sector in Uttarakhand and Himachal Pradesh (545 km), and the western sector in Ladakh (1597 km).
- The alignment of the LAC in the eastern sector is along the 1914 McMahon Line. The McMahon line marked out previously unclaimed/undefined borders between Britain and Tibet.
- The middle sector is the least disputed sector, while the western sector witnesses the highest transgressions between the two sides.

What are the Agreements Between India-China on Air Space?

- As per the existing agreements between India and China, operation of fighter aircraft and armed helicopters is restricted to a distance from the LAC.
- According to the 'Agreement on Maintenance of Peace and Tranquillity along the LAC in India-China Border Area' of 1996, "combat aircraft (to include fighter, bomber, reconnaissance, military trainer, armed helicopter and other armed aircraft) shall not fly within 10 km of the LAC.
- Between 1993 and 2012, a set of Confidence Building Measures (CBMs) were agreed upon by India and China to maintain peace between the two countries.

What is the Confidence Building Measures (CMB)?

- In a face-off situation neither side shall use force or threaten to use force against the other, Both sides shall treat each other with courtesy and refrain from any provocative actions,
- If the border personnel of the two sides come to a face-to-face situation due to differences on the alignment of the LAC, they shall exercise self-restraint and take all necessary steps to avoid an escalation of the situation.
- No military aircraft of either side shall fly across the LAC, except by prior permission. Neither side shall open fire, cause biodegradation, use hazardous chemicals, conduct blast operations or hunt with guns or explosives within two kilometres from the LAC

What was the Response after this Incident?

- The Indian side has strongly raised objections over the same.
- More recently, India and China have discussed the "proposal for direct contact" between two air forces during the special military talks.

- The direct contact mechanism could be through a separate hotline or by using the existing hotline between the two armies.
- The Indian and Chinese armies currently have six hotlines - two each in eastern Ladakh, Arunachal Pradesh and Sikkim - between their ground commanders.
- The sixth one was set up between Kongra La in north Sikkim and Khamba Dzong in the Tibetan Autonomous Region in August 2021.

What do we know about Air Space and Related Laws?

About:

- Air space, in international law, is the space above a particular national territory, treated as belonging to the government controlling the territory.
- It does not include outer space, which, under the Outer Space Treaty of 1967 is declared to be free and not subject to national appropriation.
- The treaty, however, did not define the altitude at which outer space begins and air space ends.

Air Sovereignty:

- It is the fundamental right of a sovereign state to regulate the use of its air space and enforce its own aviation law.
- State controls the entry of foreign aircraft into its territory and that persons within its territory are subject to its laws.
- The principle of air space sovereignty is established through the Paris Convention on the Regulation of Aerial Navigation (1919) and subsequently by other multilateral treaties.
- Under the 1944 Chicago Convention, contracting states agree to permit aircraft registered in the other contracting states and engaged in commercial non- scheduled flights to fly into their territory without prior diplomatic permission and, moreover, to pick up and discharge passengers, cargo, and mail.
- This provisions, in practice, has become a dead letter.

Prohibited Air Space:

- It refers to an area of air space within which flight of aircraft is not allowed, usually due to security concerns. It is one of many types of special use airspace designations and is depicted on aeronautical charts with the letter "P" followed by a serial number.

Restricted Air Space:

- Different from prohibited air space, in this space, the entry is typically forbidden for all aircrafts and is not subjected to clearance from ATC (Air Traffic Control) or the air space's controlling body.

3. ECONOMY

3.1 NITI Aayog Launches the National Data & Analytics Platform

- NITI Aayog launched the National Data & Analytics Platform (NDAP) for open public use today. The platform aims to democratize access to public government data by making data accessible, interoperable, interactive, and available on a user-friendly platform. It hosts foundational datasets from various government agencies, presents them coherently, and provides tools for analytics and visualization. This public launch follows a beta release of the platform in August 2021 that had provided access to a limited number of users for testing and feedback.
- NDAP follows a use-case based approach to ensure that the datasets hosted on the platform are tailored to the needs of data users from government, academia, journalism, civil society, and the private sector. All datasets are standardized to a common schema, which makes it easy to merge datasets and do cross-sectoral analysis.

3.2 Statement Made by India on Thematic Issues, Migration, Gender, Sand and Dust Storm at Cop15 UNCCD

- Following is the statement made by India on thematic issues-Migration, Gender, Sand and Dust storms at the 15th Session of the Conference of Parties of United Nations Convention to Combat Desertification (UNCCD) in Cote d'Ivoire.

Migration

- Desertification, land degradation and drought (DLDD) act as one of the drivers that cause migration. Other factors include climate and environmental changes. Promotion of sustainable agriculture and its associated value chains offer promising avenues to stop out-migration of rural population. Linking urban-rural communities and developmental actions to address migration was insisted in decision 22/COP.14. concludes that in rural areas affected by DLDD, livelihood opportunities through land restoration activities should be ensured. Integrated land-use planning together with enhancing green and blue infrastructure for sustainable development should be prioritised. A stronger symbiotic urban-rural linkage targeting vulnerable groups that include women, rural youth, refugees, and internally displaced person be provided with on-farm and off-farm employment. Youth are most likely to face migration and engaging youth is vital to restoration efforts for resilient and sustainable food systems. Office of the Registrar General & Census Commissioner under Ministry of Home Affairs is the designated authority in India that compiles information on migration based on the data compiled during national census that usually takes place at a gap of ten years' time interval.
- Reducing the extent of human migration is one of the pronounced achievements of watershed development programmes being implemented by Department of Land Resources, Ministry of Rural Development, Govt. of India. About 60% of the amount spent in each watershed goes for labour component which generates substantial employment for the local landless, small and marginal farming community people. Use of machinery in watershed activities is kept to the minimum so that

employment opportunities are kept intact which minimize human migration from the watershed project areas. Convergence with MGNREGS and other related schemes is an added advantage for watershed programmes to generate employment and minimize migration.

- Watershed **Development Component** – Pradhan Mantri Krishi Sinchai Yojana (WDC-PMKSY) has generated more than 37.73 Million man-days of employment which also contributed to the reduction in migration in the treated areas, especially, during pandemic period. It has further acted as an enabler of reverse migration, when labour force was reverted to their native places and engaged with the watershed workforce.

Gender

- The principle of gender equality is enshrined in the Indian Constitution in its Preamble, Fundamental Rights, Fundamental Duties and Directive Principles. The Constitution not only grants equality to women, but also empowers the State to adopt measures of positive discrimination in favour of women. Within the framework of a democratic polity, our laws, development policies, Plans and programmes have aimed at women's advancement in different spheres. From the Fifth Five Year Plan (1974-78) onwards has been a marked shift in the approach to women's issues from welfare to development. In recent years, the empowerment of women has been recognized as the central issue in determining the status of women. The National Commission for Women was set up by an Act of Parliament in 1990 to safeguard the rights and legal entitlements of women. The 73rd and 74th Amendments (1993) to the Constitution of India have provided for reservation of seats in the local bodies of Panchayats and Municipalities for women, laying a strong foundation for their participation in decision making at the local levels.
- The goal of National Policy for the Empowerment of Women, 2001 is to bring about the advancement, development and empowerment of women.
- Empowerment of women is an integral part of PMKSY in India. Representation of women has been envisioned in the Watershed Committees involved in planning, implementation and maintenance of watershed interventions. Women-based community organizations such as Self-Help Groups, User Groups and farmer producer organizations are formed and nurtured while implementing the watershed programs.
- The issues pertaining to gender in India is addressed by two ministries, namely, Ministry of Women and Child Development, and Ministry of Health and Family Welfare. Gender equality is also a major sustainable development goal (SDG 5). In this context, India had proposed its National Action Plan to improve statistics on gender.
- The SDG-5 and the basic premise for considering gender as a thematic area is directed towards phasing out gender discrimination from all sectors. The Government of India has taken steps to address this issue at the most fundamental level through the ***“Beti Bachao, Beti Padhao”***. The scheme allows a girl child to be self-sustainable with regard to her own education. To increase participation of women in scientific

innovation, the Gender Advancement for Transforming Institutions (GATI) programme has been initiated by the Department of Science Technology, Government of India.

- Decision 12/COP.14 emphasized on raising awareness amongst women with regard to land degradation. With respect to this, the Indian Council of Agricultural Research (ICAR) has been conducting knowledge exchange programs with women farmers residing in drought-prone areas. However, as far as SDG-5 is concerned, there is scope for ample progress to be made especially in the areas of women participation in labour.

3.3 Sand and Dust storms

- Sand and dust storms (in short SDS) are of common occurrence in arid and semi-arid regions both in Asia and Africa and affects 11 of the 17 SDGs. SDS adversely impact environment and quality of life. India highly appreciates that United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) is supporting regional cooperation for issues related to SDS.
- Decision 25/COP (14) requested UNCCD to finalise and publish Sand and Dust Storms Compendium to provide information and guidance on assessing and addressing the risks related to SDS.
- India acknowledges and fully supports that the UNCCD secretariat has been assisting countries in regional planning and policy framework on combating SDS. Several pilot projects were implemented in central and northeast Asia including China, Korea and Russia to formulate national SDS plans.
- In India, work on monitoring of SDS is primarily done by the Indian Meteorological Department (IMD).
- ICCD/COP (15)/16, para 23 highlights about major gaps in monitoring, risk assessment, impact assessment and emergency response measures while addressing issues related to the SDS.
- Anthropogenic SDS source mitigation is lacking in most of the countries and there is a lack of required data and information to address SDS related issues.
- Capacity building of parties to address SDS through SDS toolbox and decision support system was envisaged. The first SDS Toolbox will be made available by mid-2022. Usually, these Toolbox provide methodology to integrate available information in a scientific way to address envisaged problems at a coarser scale.
- India can designate appropriate remote sensing agency (such as SAC/ NRSC) to develop GIS layers at finer scale to integrate indicator layers to test its applicability on ground for further improvement. This would address the issues in a more pragmatic way.

3.4 GeM, CSC and India Posts sign MoU for engagement of last-mile Government buyers, sellers and service providers in public procurement

- The MoU was conceived after the successful integration of GeM and India Post on 05th May 2022. With this integration, it is now possible for all last-mile Govt buyers, sellers and service-providers to avail the logistics services and facilities over GeM through the India Post facilities located in the remotest parts of India.

- Nearly 4.5 lakh+ Common Service Centers [CSC] and approx. 1.5 lakh+ India Post offices across India will be trained to assist last-mile Govt buyers, sellers and service providers with buyer/ seller registration, product catalogue upload and management, order acceptance, fulfilment and invoice generation functionality on GeM portal. Value-added services such as photography of product images, packaging, logistics and shipment of packages through Speed Post and Business Parcel, through India Post website, online, print and office communication channels will also be delivered at charges defined by CSC and Department of Posts. GeM Services offered through CSCs and India Post Offices will be made available to all Govt buyers, sellers and service providers at no charge.
- Vernacular language-based training curriculum in print and digital media for CSCs and India Post staff based on the requirement of the participants is being developed by GeM in consultation with CSC-SPV and Dept of Posts. Training sessions will be conducted through in-person and virtual training modes at 6,000+ CSCs nominated by CSC-SPV and co-located at district and block-level, who in turn will train panchayat level Village-Level Entrepreneurs [VLE] to familiarize them on various buyer and seller functionalities on the GeM portal.
- Rates for packaging materials and shipment of packages through Speed Post and Business Parcel through India Post website, online, print and office communication channels will be shared with CSCs. Dept of Posts will conduct “Train-the-Trainer” training programs related to various postal products and services such as Speed Post and Business Parcel, namely, packaging of consignments using packaging material defined as per the Shipment Packaging Policy of Dept of Posts through the 6,000+ CSCs nominated by CSC-SPV in a phased manner. Dept of Posts will ensure the availability of India Post packaging material including boxes, BOPP tapes, bubble-wrap, flyers and air sacks in-store at nearest post offices for CSCs, facilitate the pick-up, transmission and delivery of Speed Post and Business Parcel as per standards defined by Dept of Posts, and ensure priority processing of all GeM labelled packages.
- GeM will institute a rewards and incentives program for top-performing CSCs and Post Offices. CSCs and Post Offices achieving the highest number of i) successful buyer and seller registrations, and ii) product and service catalogue uploads at block, district, state and national level, will be felicitated through awards at the Annual GeM-CII National Public Procurement Conclave [NPPC] held each year on 8-9th August in New Delhi. GeM will work with CSC-SPV and India Post to train top performing CSCs and staff at Post Offices as “GeM Master Trainers” during “GeM Boot Camps”, create and share their success stories in print and digital media, and groom them as GeM Ambassadors, in their respective communities.
- Last-mile stakeholders such as Local Bodies, Panchayati Raj institutions, among others and under-served seller groups in rural areas; namely women, khadi and tribal entrepreneurs, micro, small enterprises [MSE], self-help groups [SHGs], farmer producer organizations [FPO], Startups, artisans and weavers, divyangjan and Hunar-Haat craftsmen, bamboo producers, and stakeholders’ such as

Corporates, Private Companies Colleges, Scientific and Technical Research Institutions, and Universities, among others in public procurement will benefit from this MoU.

Government e Marketplace [GeM]

- GeM is a Section 8 company setup under the administrative control of the Department of Commerce, Ministry of Commerce and Industry, for procurement of goods and services by Central Ministries, State Departments, PSEs and Autonomous Bodies.
- CSC e-Governance Services India Ltd. [CSC-SPV]
- CSC e-Governance Services India Ltd. [hereinafter referred to as CSC-SPV], a company incorporated under the Companies Act 1956 under the Ministry of Electronics and Information Technology [MeitY], Government of India to operationalize, rollout and monitor the implementation of CSC scheme.

Department of Posts [DoP]

- Department of Posts under Ministry of Communications, is governed by the Indian Post Office Act, 1898, and its core activities include processing, transmission and delivery of mail and parcels, money remittances across the country and financial inclusion by providing various financial services and Direct Benefit Transfer at doorsteps of the beneficiaries even in remote rural areas.

3.5 Record Foodgrains Production of 314.51 million tonnes estimated in the country

- Foodgrain Production estimated to be 23.80 million tonnes more than average foodgrain production of last 5 years.
- Record production of rice, maize, pulses, oilseeds, gram, rapeseed and mustard and sugarcane estimated
- The Record Production of so many crops is the result of the Farmer-Friendly Policies of the Central Government and tireless hard work of the farmers and the diligence of the Scientists: Union Agriculture Minister.
- The third advance estimates of production of major agricultural crops for the year 2021-22 have been released by the Union Ministry of Agriculture and Farmers Welfare. The production of Foodgrains in the country is estimated at record 314.51 million tonnes which is higher by 3.77 million tonnes than the production of foodgrain during 2020-21. The production during 2021-22 is higher by 23.80 million tonnes than the previous five years' (2016-17 to 2020-21) average production of foodgrains. Record production is estimated of rice, maize, pulses, oilseeds, gram, rapeseed and mustard and sugarcane. Agriculture and Farmers Welfare Minister Shri Narendra Singh Tomar has said that, this record production of so many crops is the result of the farmer-friendly policies of the Central Government under the able leadership of Prime Minister Shri Narendra Modi as well as tireless hard work of the farmers and the diligence of the scientists.
- The assessment of production of different crops is based on the data received from States and validated with information available from other sources. The estimated production of various crops as per the 3rd

Advance Estimates for 2021-22 vis-à-vis the comparative estimates for the years 2007-08 onwards is enclosed.

- As per 3rd Advance Estimates, the estimated production of major crops during 2021-22 is as under:
Foodgrains 314.51 million tonnes, Rice 129.66 million tonnes. (record), Wheat 106.41 million tonnes, Nutri / Coarse Cereals 50.70 million tonnes, Maize 33.18 million tonnes. (record), Pulses 27.75 million tonnes. (record), Tur 4.35 million tonnes, Gram 13.98 million tonnes. (record), Oilseeds 38.50 million tonnes. (record), Groundnut 10.09 million tonnes, Soyabean 13.83 million tonnes, Rapeseed and Mustard 11.75 million tonnes. (record), Sugarcane 430.50 million tonnes (record), Cotton 31.54 million bales (each of 170 kg), Jute & Mesta 10.22 million bales (each of 180 kg).
- As per 3rd Advance Estimates for 2021-22, total Foodgrains production in the country is estimated at record 314.51 million tonnes which is higher by 3.77 million tonnes than the production of foodgrain during 2020-21. Further, the production during 2021-22 is higher by 23.80 million tonnes than the previous five years' (2016-17 to 2020-21) average production of foodgrains.
- Total production of Rice during 2021-22 is estimated at record 129.66 million tonnes. It is higher by 13.23 million tonnes than the last five years' average production of 116.43 million tonnes.
- Production of Wheat during 2021-22 is estimated at 106.41 million tonnes. It is higher by 2.53 million tonnes than the last five years' average wheat production of 103.88 million tonnes.
- Production of Nutri / Coarse Cereals estimated at 50.70 million tonnes, which is higher by 4.12 million tonnes than the last five years' average production of 46.57 million tonnes.
- Total Pulses production during 2021-22 is estimated at record 27.75 million tonnes which is higher by 3.92 million tonnes than the last five years' average production of 23.82 million tonnes.
- Total Oilseeds production in the country during 2021-22 is estimated at record 38.50 million tonnes which is higher by 2.55 million tonnes than the production of 35.95 million tonnes during 2020-21. Further, the production of oilseeds during 2021-22 is higher by 5.81 million tonnes than the average oilseeds production.
- Total production of Sugarcane in the country during 2021-22 is estimated at record 430.50 million tonnes which is higher by 57.04 million tonnes than the average sugarcane production of 373.46 million tonnes.
- Production of Cotton and Jute & Mesta is estimated at 31.54 million bales (each of 170 kg) and 10.22 million bales (each of 180 kg), respectively.

3.6 Foreign Investment Facilitation Portal (FIF) completes 5 years since Union Cabinet decision to abolish FIPB

- 853 FDI proposals disposed off in the last 5 years; FDI jumped by 39% since FIF came into being
- 853 FDI proposals have been disposed off through the Foreign Investment Facilitation Portal (FIF) since abolishment of Foreign Investment Promotion Board (FIPB). The proposal for abolition of FIPB was approved by the Union Cabinet in its meeting on 24th May, 2017. Subsequent to abolition of the Foreign Investment Promotion Board (FIPB), granting of government approval for foreign investment under the

extant FDI Policy and FEMA Regulations was entrusted to the concerned Administrative Ministries/Departments and Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce & Industry, was made the nodal Department.

- The FDI proposals were, thereafter, required to be filed only on Foreign Investment Facilitation Portal (FIF Portal), which is managed by DPIIT. The proposals filed on FIF Portal are forwarded to the concerned Administrative Ministry and are also simultaneously marked to Ministry of External Affairs (MEA) and Reserve Bank of India (RBI) for comments and to Ministry of Home Affairs (MHA) for necessary security clearance, wherever required as per the FDI Policy/ FEM Regulations.
- A Standard Operating Procedure (SOP) for processing of FDI proposals, including documents to be filed, through FIF Portal was framed and laid down by DPIIT on 29th June, 2017 with amendment on 09th Jan, 2020.
- Since then, not only the FDI has increased so have the number of countries bringing in FDI into India. In FY 2014-15, FDI inflow in India stood at mere USD 45.15 billion, which increased to USD 60.22 billion in 2016-17 and further to the highest ever annual FDI inflow of USD 83.57 billion reported during the FY 2021-22 despite COVID-19 pandemic and recent Russia-Ukraine conflict. During FY 2021-22 FDI has been reported from 101 countries, whereas, it was reported from 97 countries during previous financial year (2020-21).
- Automated alerts through SMS and emails to concerned ministries/ departments are being used to regulate pendency of FDI proposals. Secretary, DPIIT reviews the pendency of FDI proposals across all ministries / departments on monthly basis. This has expedited the disposal of FDI proposals. Regular training sessions are also being conducted to educate ministries/departments regarding judicious and expeditious processing of FDI proposal.
- Regular round table conferences are conducted with investors and law firms alike to keep abreast of the practical issues and problems being faced at the ground level. The FDI proposal form on FIF Portal is regularly reviewed to reduce compliance burden on applicants. FAQs have been updated and placed on DPIIT website and on FIF Portal for ease of access. Hence, continuous effort is made by DPIIT to ensure that India remains an investor friendly destination.

3.7 Coal Ministry to Organize National Mineral Congress and Coal Gasification Plant Visit in

Bhubaneshwar

- Industry Experts From 20 Prominent Companies to Attend Focus on Challenges in Aluminium & Steel Sector, Coal Gasification and Roadmap for Coal to Hydrogen.
- Ministry of Coal will be organizing National Mineral Congress and field visit of Coal Gasification Plant of JSPL at Angul, Bhubaneshwar on 27th and 28th May 2022. Secretary Coal, Dr Anil Kumar Jain who is also Chairman of Indian National Committee of World Mining Congress (INC WMC) will be inaugurating the Congress. Industry experts in the field of Coal Gasification such as Naveen Jindal Chairman JSPL, Directors of CIL, NLCIL will also be part of panel discussions besides representatives

of BHEL, EIL, CIMFR, Air Products. The Congress will be attended by experts from more than 20 Companies such as CIL and its subsidiaries, BHEL, SCCL, NLCIL, Hindalco, Vedanta, HCL, NALCO, Tata Steel, JSPL, EPIROC, GAINWELL, EIL, STM Constructions, Synata Bio, Air Products and many other companies.

- The visit to Coal Gasification plant at Angul will be taking place on 28th May, 2022 and is expected to provide an opportunity to professionals engaged in setting up of coal gasification plants in India to gain first-hand knowledge about the functioning of gasification plant.

The major sub themes of the Congress are as follows:-

1. Technology Adoption in Mining

2. Challenges in Aluminium and Steel Sector

3. Coal Gasification and Roadmap for Coal to Hydrogen

- Technology adoption and Coal Gasification is focus area of the Central Government and to take ahead the vision, Ministry of Coal has also launched documents related to Mission for 100 Million Ton (MT) Coal Gasification by 2030; Road map of Coal to Hydrogen and Technology Roadmap during last 6 months after detailed stake holder consultation.
- The National Mineral Congress is being organized by INC WMC with an aim to serve as a common platform to interact, thoughtfully deliberate /discuss and to decide effective ways and means for addressing this all-important issue by having brain storming sessions that are suitably structured.
- Indian National Committee of World Mining Congress (INC WMC) is affiliated to World Mining Congress an organization affiliated to United Nations. The objective of Organization is to promote and foster the development of mining and mineral sector with emphasis on the Indian mining sector.

3.8 Fake reviews on E-Commerce platforms under Centre's radar

- Department of Consumer Affairs to hold meeting with E-Commerce entities and stakeholders to discuss magnitude of fake reviews and prepare a roadmap ahead.
- To gauge the magnitude of fake reviews on E-Commerce platforms which mislead consumers into buying online services or products and to prepare a roadmap ahead, the Department of Consumer Affairs (DoCA) in association with the Advertising Standards Council of India (ASCI) will be holding a virtual meeting on Friday, 27th May, 2022 along with various stakeholders.
- The discussions will be broadly based on the impact of fake and misleading reviews on consumers and possible measures to prevent such anomaly. In this regard, Secretary DoCA, Shri Rohit Kumar Singh has written to all stakeholders: E-Commerce entities like Flipkart, Amazon, Tata Sons, Reliance Retail and others besides, Consumer Forums, Law Universities, Lawyers, FICCI, CII, Consumer Rights Activists etc. to participate in the meeting.
- Along with the letter, Shri Singh has also shared a Press Release of European Commission dated January 20th, 2022 highlighting results of an EU-wide screening on online consumer reviews across 223

major websites. The screening results underlines that at least 55% of the websites violate the unfair commercial Practices Directive of the E.U. which requires truthful information to be presented to consumers to make an informed choice. Further, in 144 out of the 223 websites checked, the authorities could not confirm that traders were doing enough to ensure that reviews were authentic, i.e., if they were posted by consumers who had actually used the product or service that was reviewed.

- The letter states that ‘It is relevant to mention that with growing internet and smartphone use, consumers are increasingly shopping online to purchase goods and services. Given that e-commerce involves a virtual shopping experience without any opportunity to physically view or examine the product, consumers heavily rely on reviews posted on e-commerce platforms to see the opinion and experience of user who have already purchased the goods or service. As a result, due to fake and misleading reviews, the right to be informed, which is a consumer right under the Consumer Protection Act, 2019 is violated.’
- ‘Since the issue impacts people shopping online on a daily basis and has a significant impact on their rights as a consumer, it is important that it is examined with greater scrutiny and detail,’ the letter states.

3.9 Cooperative Societies on GeM Platform: A step towards a transparent, efficient, and economic procurement system

- The Union Cabinet under the visionary leadership of the Prime Minister Shri Narendra Modi, has approved the registration of cooperative societies as ‘Buyers’ on Government e-Marketplace (GeM) platform
- Under the leadership of Union Minister of Cooperation Shri Amit Shah, Ministry of Cooperation is encouraging Multi State Cooperative Societies and Cooperative Societies registered under State Cooperative Acts to join the GeM.
- The Union Cabinet has approved the registration of cooperative societies as ‘Buyers’ on Government e-Marketplace (GeM) platform. This will enable the cooperative societies to access more than 45 Lakh vendors on a single platform and to follow a transparent, economic and efficient procurement system.
- Under the leadership of Union Minister of Cooperation Shri Amit Shah, Ministry of Cooperation is encouraging Multi State Cooperative Societies and Cooperative Societies registered under State Cooperative Acts to join the GeM platform for the benefit of their members and hopes that more and more cooperatives Societies will get benefit of this by joining GeM platform.
- At present, there are about 8.54 lakh cooperatives in India with about 29 crore membership. They have been performing a wide range of activities for the production of goods and services. These cooperatives make huge purchases of goods and services from the open market to support their operations. There was a felt need to provide a platform to them to avail competitive prices through a transparent and efficient process resulting in benefit to the members of the cooperative societies.
- Government e-Marketplace (GeM) has been set up as a National Procurement Portal to provide an end-to-end online market place for Central and State Government Ministries/ Departments, and PSUs etc. for

procurement of common-use goods and services in a transparent and efficient manner. The Gross Merchandise Value of procurement using GeM was more than Rs.1 lakh crore in the FY 2021-22. There are around 54 lakh products listed across 9,702 product categories and 279 service categories. There was an estimated savings of around Rs.10,000 crores in the FY 2021-22.

Purchases through GeM will provide the following benefits:

1. The Cooperatives would get competitive prices through an open and transparent process, and this would be economically beneficial to the members of the societies.
 2. The Cooperative societies can procure from about 45 lakh authenticated sellers/ service providers available across the country on a single GeM platform,
 3. Following the standard procedures on GeM would lead to saving of time and reduction in the administrative burden.
 4. It would enhance the credibility of the cooperatives as complaints of mismanagement of funds will get reduced.
- GeM authorities will provide a dedicated on-boarding process for cooperatives, technical infrastructure and support for on-boarding and transactions, via available contact centres, in-field training, and other support services.

4. ENVIRONMENT

4.1 Assam Floods

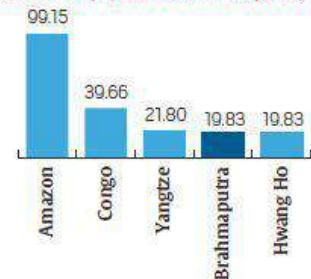
Assam is witnessing another spate of its annual flooding with the Brahmaputra breaching its embankments due to incessant rainfall.

AREA OF INFLUENCE

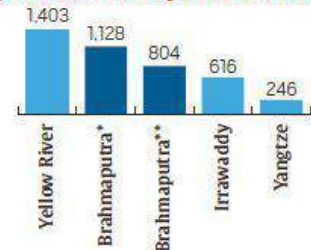


STRONGEST & SILTIEST

AVERAGE DISCHARGE AT MOUTH (1,000 CUBIC m/sec)



SEDIMENT YIELD (TONNES PER sq km PER YEAR)



*at Bahadurabad, Bangladesh; **at Pandu, Guwahati

Reasons for floods in Assam

- **Natural Sedimentation:** As the Brahmaputra comes from the Kailash range at an elevation of over 5,000 m, there is a **sudden drop in velocity** and the river **deposits huge quantities of sediment** and other debris collected from hilly terrains on the riverbed as it enters Assam, raising its level.
 - During **summers**, the **sedimentation increases** as **soil erodes** with the melting of glaciers.
 - **High level of sedimentation** raises the level of the river and reduces its water carrying capacity.
- **Intense Monsoon:** According to the **State Disaster Management Authority**, annual rainfall in the Northeast India averages around **2900 mm** with **maximum precipitation in June and July**.
 - The valley gets a good amount of rainfall in April and May due to thunderstorm activities which account for flood during heavy rain in June, when the soil is already saturated.
 - During monsoon, **highly sedimented river water from the Himalayas combines with rain-fed water bodies** in India, resulting in water spilling over land in the narrow valleys.
- **Seismic Activity:** Assam lies in a **seismically active zone**. An increase in construction activities in the recent area has resulted in frequent landslides. Earthquakes and landslides also push sediments and debris into rivers, which further raises the riverbed and increases the risk of floods.
- **Human Activities:** Most of these in Assam embankments have either outlived their utility or are in bad condition. But, over time people have settled near these embankments increasing worries of flood related disasters.
 - Other man-made factors like deforestation, hill cutting, encroachments and destruction of wetlands have also worsened the flood situation.
 - There has also been a population boom in the State which has put more pressure on the State's ecology.
- **Climate Change:** Extreme rainfall events will **increase by 38 per cent** due to **climate change in Assam**, according to reports.
 - Also, melting of glaciers due to rising temperatures will mean that rivers from the Himalayas will be carrying more water and sediment even before they enter Assam where smaller rivers are swelled up due to incessant rainfall.
 - This will increase the possibility of **frequent flash floods in low-lying areas**.

Has the government tried to address the factors that cause floods?

- In its master plan on the river in 1982, the Brahmaputra Board had suggested that dams and reservoirs be built to mitigate floods.
- The idea of dams, however, has traditionally been a double-edged sword. While one of their objectives is to regulate the release of flood waters, the release when it comes can sometimes be beyond the capacity of the channels downstream.
- In the Brahmaputra basin, locals and environmentalists protested against dam-building plans on grounds of displacement and destruction of ecology, preventing the plans from moving forward.
- **Dredging:** The government also considered dredging, basically digging up the riverbed and making the river “deeper”. However, experts have strongly advised against this simply because the Brahmaputra sediment yield is among the highest in the world.

Building embankments”

- Embankments were proposed only as an interim and ad hoc measure for short-term mitigation,” Their lack of durability has often been on display.
- However Most embankments built in the 1980s are not strong enough. Since they were temporary measures, the government did not spend on high-specification embankments. These are weak and are regularly breached.

But, is there a long-term solution?

- For a sustainable solution, there needs to be “a basin-wide approach” to the problem.
- An “integrated basin management” system that should ideally bring in all the basin-sharing countries on board
- Addressing the issues only in Assam when the flood strikes isn’t the solution — one needs the countries to come to an understanding about taking measures in the catchment areas.
- For that, **interstate relationships, political cooperation and the role of the government are important.**
- **Flood-plain zoning**, which is done in the US. “Depending on the vulnerability of the area, you divide them into categories, and accordingly ban certain activities on it: like farming, building a house etc.”

4.2 Cloudbursts

Cloudburst has caused flooding and led to injuries and deaths of the pilgrims and the localites recently in Amarnath, Jammu and Kashmir.

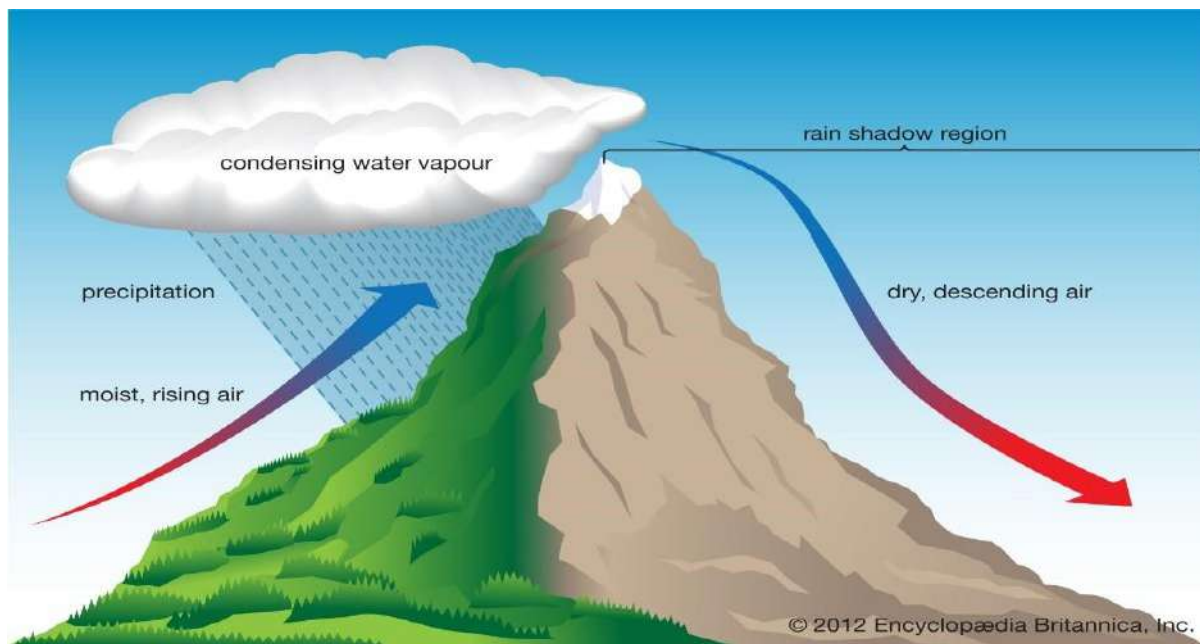
What is a cloudburst?

- A cloudburst refers to an extreme amount of rain that happens in a short period, sometimes accompanied by hail and thunder, and this has a precise definition. The India Meteorological Department (IMD) defines it as unexpected precipitation exceeding 100mm (or 10 cm) per hour over a geographical region of approximately 20 to 30 square km. Significant amounts of rainfall such as this can result in floods.

- Basically, all instances of cloudbursts involve heavy rain in a short period, but all instances of heavy rain in a short period are not cloudbursts if they do not fit this criterion.

Why do cloudbursts occur in hilly areas like Amarnath?

Experts have said it is difficult to predict when exactly a cloudburst will occur, and there is little definitive data on the exact number of cloudbursts that occur in India. Due to their definition dealing with a very small area, it is difficult to accurately predict and identify cloudbursts immediately. However, they are more likely to occur in mountainous zones mainly because of terrain and elevation.



This is because, in hilly areas, sometimes saturated clouds ready to condense into rain cannot produce rain, due to the upward movement of the very warm current of air. Instead of falling downwards, raindrops are carried upwards by the air current. New drops are formed and existing raindrops increase in size. After a point, the raindrops become too heavy for the cloud to hold on to, and they drop down together in a quick flash.

A study published in 2020 examined the meteorological factors behind the cloudburst over the Kedarnath region, where a cloudburst aided the devastating 2013 floods. It found that during a cloudburst, the relative humidity and cloud cover was at the maximum level with low temperature and slow winds. “It is expected that because of this situation a high amount of clouds may get condensed at a very rapid rate and result in a cloudburst.

Impact of Climate Change on Cloudbursts:

- Climate change is found to have increased the frequency and intensity of cloudbursts in many cities across the globe.
- The World Meteorological Organization in 2021, noted that there is about a 40% chance of the annual average global temperature temporarily reaching 1.5°C above the pre-industrial level in at least one of the next five years.

- It added that there is a 90% likelihood of at least one year between 2021 and 2025 becoming the warmest on record and dislodge 2016 from the top rank.
- It is seen that more cloudbursts are happening in Himalayan region because the decadal temperature rise in the Himalayan region is higher than the global rate of rising temperatures.

4.3 IPBES Report on Sustainable Wildlife Management

A recent report released by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) has stated that sustainable use of wild species can meet needs of billions of people.

About the News

- IPBES is an independent intergovernmental body, established by in 2012 to strengthen the science-policy interface for biodiversity and ecosystem services for the conservation and sustainable use of biodiversity, long-term human well-being and sustainable development.
- Its recent report is the first of its kind and has been conceived after a period of four years.
- Its assessment shortlisted five categories of practices used for wild species namely Fishing, Gathering, Logging, Terrestrial animal harvesting which includes hunting and non-extractive practices such as observing.

Key Highlights of the Report

Dependence on Wild Species:

- About 70% of the world's poor population is directly dependent on wild species.
- 20% source their food from wild plants, algae and fungi.

Important Source of Income

- The report notes that Wild tree species account for two thirds of global industrial roundwood and trade in wild plants, algae and fungi is a billion-dollar industry.

Local Variations:

- About 34% of marine wild fish stocks are overfished and 66% are fished within biologically sustainable levels.
- But within this global picture, there are significant local and contextual variations.

Unsustainable Logging of Tree Species:

- The survival of an estimated 12% of wild tree species is threatened by unsustainable logging.
- Unsustainable gathering is one of the main threats for several plant groups, especially cacti, cycads and orchids.
- Unsustainable hunting has been identified as a threat for 1,341 wild mammal species – with declines in large-bodied species that have low natural rates of increase also linked to hunting pressure.

Rural People are at Risk of Unsustainable Use:

- Rural people in developing countries are most at risk from unsustainable use of Wild Species, with lack of complementary alternatives often forcing them to exploit wild species already at risk.

Cultural Significance leading to Exploitation:

- Certain species have cultural importance as they offer multiple benefits that define tangible and intangible features of people's cultural heritage.
- The use of wild species is also a source of culturally meaningful employment for such communities and they have engaged in the trade of wild species and materials since millennia.
- Wild rice (*Zizania palustris* L.) is a cultural keystone species, providing physical, spiritual and cultural sustenance for many indigenous peoples in the Great Lakes region of North America.

Threats:

- Drivers such as land- and seascape changes, climate change, pollution and invasive alien species that impact the abundance and distribution of wild species, and can increase stress and challenges among the human communities that use them.

Illegal Trade:

- Illegal trade in wild species represents the third largest class of all illegal trade– with estimated annual values of up to USD199 billion. Timber and fish make up the largest volumes and value of illegal trade in wild species.

4.4 Amendments to Environment Protection Act

- The Ministry of Environment, Forest and Climate Change has recently proposed amendments in the Environment Protection Act, 1986.
- Incidentally, the current EPA provisions will govern the penalties in case of the single-use plastic ban that has come into effect recently.

Key Amendments Proposed in Act

- The Ministry has proposed the decriminalisation of the existing provisions of the EPA, 1986 in order to weed out fear of imprisonment for simple violations.
- It involves removal of imprisonment as a penalty for the "less severe" contraventions.
- However, serious violations of EPA which lead to grievous injury or loss of life shall be covered under the provision of the Indian Penal Code.
- Failure or contravention or non-compliance of the provisions of EPA such as submitting reports, furnishing information etc. will now be dealt by imposing a monetary penalty through duly authorised Adjudicating Officer.

- Instead of imprisonment, the amendments propose the creation of an Environmental Protection Fund which the amount of penalty imposed by the Adjudicating Officer after adjudicating the damage to the environment shall be remitted.
- The Central Government may prescribe the manner in which the Protection Fund shall be administered.

Reasons behind the proposal:

- The Environment Ministry had received suggestions to decriminalise existing provisions of the EPA to weed out “fear of imprisonment for simple violations”.
- The current EPA provisions will govern the penalties in case of the single-use plastic ban that came into recently.

Pending Cases:

- An analysis by the Centre for Science and Environment (CSE) found that Indian courts took between 9-33 years to clear a backlog of cases for environmental violations.
- Beginning 2018, close to 45,000 cases were pending trial and another 35,000 cases were added in that year.
- More than 90% cases were pending trial in five of the seven environment laws.

Significance

- Increased fines can promote environmental protection and take care of public health from the toxicity produced by harmful human activities with different resources of the environment.
- Many business companies worldwide are coming forward with many environmental management systems and plans and adding them to their business agendas for environmental protection. And now with the Government entering the space with stringent regulations will be beneficial.
- It will help in the reduction of waste produced daily.
- It will help to combat all main types of pollution i.e., air, water, land, thermal, radiation, and noise pollution.

Way Ahead**Steps Government can take:**

- Respective governments can further make new and improved guidelines and policies for government agencies regarding the implementation of environmental management systems.
- They can develop guidelines for the companies regarding the process of environmental protection management and reporting of the same.
- They can make strict rules regarding a person and company who does not follow guidelines properly.
- Introducing the 3 R's – Reduce, reuse, and recycle. Everyone should be taught how to reduce waste products, reuse old products, and recycling materials for new usage.

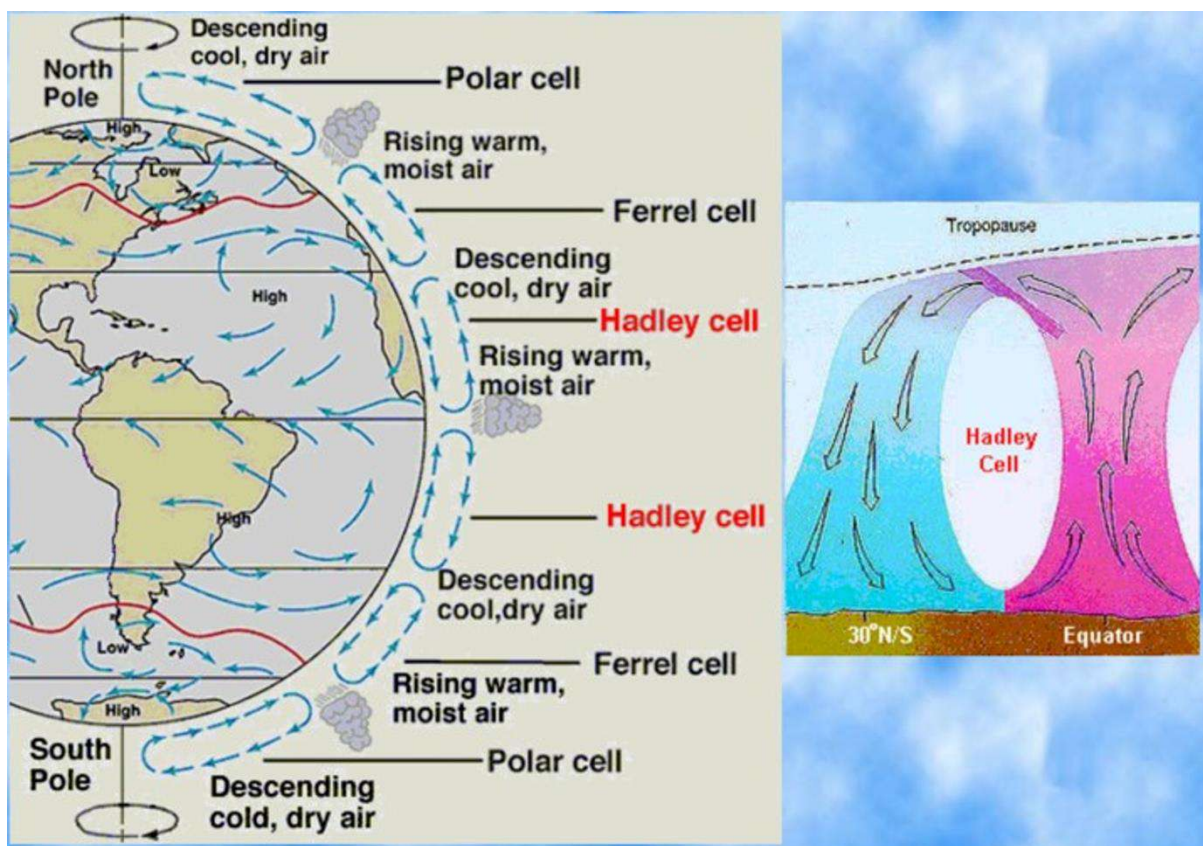
4.5 Azores High

- An extremely large 'Azores High' (a subtropical weather phenomenon) has resulted in abnormally dry conditions across the western Mediterranean region.

Understanding Azores High

- Azores High is a subtropical high-pressure system that extends over the eastern subtropical North Atlantic and western Europe during winter.
- It is associated with anticyclonic winds in the subtropical North Atlantic.
- It is formed by dry air aloft descending the subtropics and coincides with the downward branch of the Hadley Circulation.

Hadley Circulation:



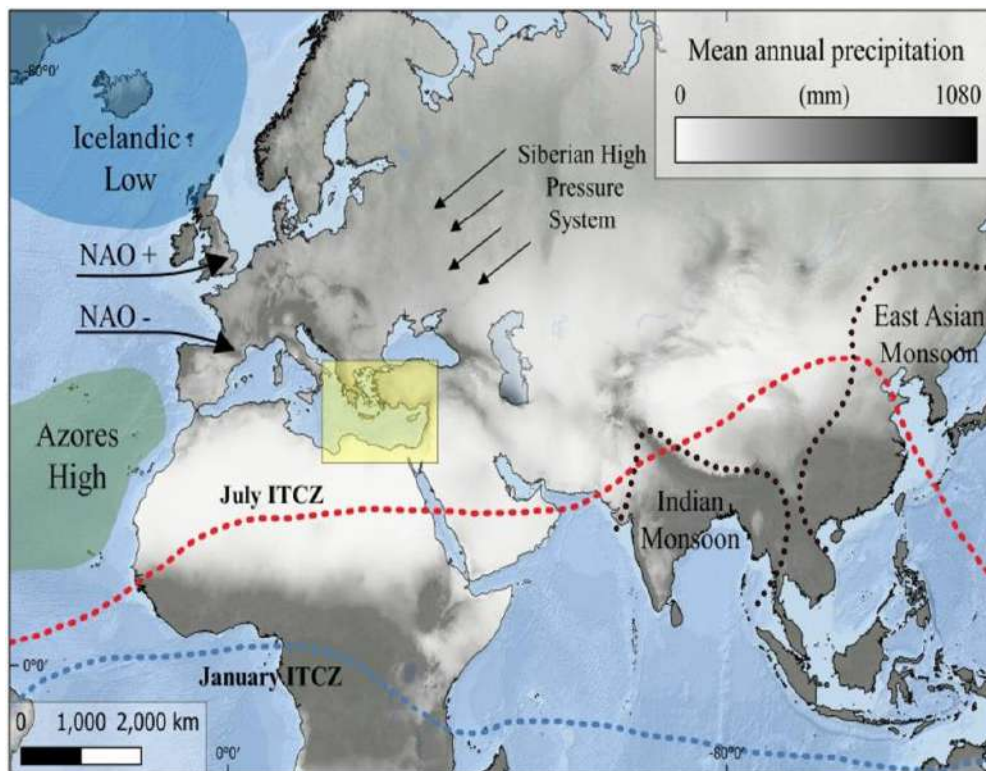
- Hadley Cells are the low-latitude overturning circulations that have air rising at the equator and air sinking at roughly 30° latitude.
- They are responsible for the trade winds in the Tropics and control low-latitude weather patterns.
- Hadley cells could extend all the way to the poles.

Effects of Azores High:

- An annual drying of 5-10 millimetres per year per decade has been recorded in the Iberian Peninsula throughout the second half of the 20th.
- A further 10-20% drop in winter precipitation is expected by the end of the 21st
- These projected changes make agriculture of the Iberian region some of the most vulnerable in Europe.

The study projected:

- Olive-growing regions in southern Spain will suffer a 30% decline in production by 2100.
- Cultivation area in grape-growing regions across the Iberian Peninsula will shrink 25% - 99% by 2050 due to severe water deficits that will render land unsuitable for viticulture.

**Reasons for the Expanding Azores High:**

- The Azores High expansion is driven by external climate forces and that the only external forcing that produces this signal in the industrial area is atmospheric greenhouse gas concentrations.
- Azores High expansion emerged after 1850 and strengthened in the twentieth century, consistent with anthropogenically driven warming.
- The researchers explored the changing atmospheric conditions since the onset of the industrial era that contributed to these regional hydroclimatic changes by assessing how the characteristics of the Azores High varied over the past 1,200 years.
- An expanding Azores High agrees with reports of a poleward shift in the North Atlantic storm track and an increase in anticyclone frequency at the Azores High's poleward edge as well as a positive trend in regional subtropical indicators.

4.6 'Living land' charter**Why in News?**

- Recently, the Commonwealth members have agreed to voluntarily dedicate 'living land' in their respective countries to future generations, in line with the strategy set for the United Nations Decade on Ecosystem Restoration.

- The 'Living land' charter was announced at the conclusion of the 2022 Commonwealth Heads of Government Meeting (CHOGM) in Kigali (Rwanda).

What is the United Nations Decade on Ecosystem Restoration?

- The United Nations Decade on Ecosystem Restoration runs from 2021 to 2030.
- Its purpose is to promote the United Nation's environmental goals.
- Specifically, to facilitate global cooperation for the restoration of degraded and destroyed ecosystems.
- It calls for protection and revival of ecosystems across the world.

What is the Living Land Charter?

- The non-binding 'Living Lands Charter' mandates that member countries will safeguard global land resources and arrest land degradation while acting against climate change, biodiversity loss and towards sustainable management.
- The Living Lands Charter helps to encapsulate the combined effort to hold the global average temperature increase to 1.5 degrees Celsius.
- The charter aims to achieve climate goals through a mixture of policy influence, financing, technical assistance, governance and sharing knowledge across nations.
- Commonwealth governments have been asked to submit their emission reduction targets by 23rd September, 2022.
- It is aimed to support member countries to effectively deliver their commitments under the three Rio conventions — UN Convention on Biological Diversity, UN Convention to Combat Desertification (UNCCD) and UN Framework Convention on Climate Change.

4.7 Theri Desert in Tamil Nadu

- Recent news has highlighted the desert in Tamil Nadu. It has dunes that are red. The red dunes are called theri in Tamil.
- They consist of sediments dating back to the Quaternary Period and are made of marine deposits.

Mineral composition of Theris

- The analysis of the red sand dunes reveal the presence of heavy and light minerals.
- These include Ilmenite, Magnetit, Rutile, Garnet, Zircon, Diopside, Tourmaline, Hematite, Goethite, Kyanite, Quartz, Feldspar, Biotite.
- The iron-rich heavy minerals like ilmenite, magnetite, garnet, hypersthene and rutile present in the soil had undergone leaching by surface water.
- They were then oxidised because of the favourable semi-arid climatic conditions.

**How did they form?**

- Theris appear as gentle, undulating terrain.
- The lithology of the area shows that the area might have been a paleo (ancient) coast in the past.
- The presence of limestone in many places indicates marine transgression.
- The present-day theris might have been formed by the confinement of beach sand locally, after regression of the sea.
- When high velocity winds from the Western Ghats blew east, they induced migration of sand grains and accumulation of dunes.

Another story of their formation

- Another view is that these are geological formations that appeared in a period of a few hundred years.
- The red sand is brought from the surface of a broad belt of red loam in the plains of the Nanguneri region (about 57 kilometres) by south west monsoon winds during May-September.
- The winds after draining the moisture behind the Mahendragiri hill and the Aralvaimozhi gap of the Western Ghats become dry and strike the plains in the foothills, where vegetation is sparse.
- Deforestation and the absence of vegetative cover in the Aralvaimozhi gap and the Nanguneri plains are considered to be the major causes of wind erosion.

5. SCIENCE & TECHNOLOGY

5.1 TiHAN-“Technology Innovation Hub on Autonomous Navigation”

- Union Minister of State (Independent Charge) Science & Technology Dr Jitendra Singh inaugurated first-of-its-kind, state-of-the-art “Autonomous Navigation” facility to develop unmanned ground and aerial vehicles in the IIT Hyderabad campus with a budget of 130 crs.
- It is a multidisciplinary initiative, which aims at making India a global player in the futuristic and next-generation “Smart Mobility” technology.
- The multi-departmental initiative includes researchers from electrical, computer science, mechanical and aerospace, civil, mathematics, and design at IIT-H. There is also collaboration and support from reputed institutions and industry.
- The focus will be on solving various challenges hindering the real-time adoption of unmanned autonomous vehicles for both terrestrial and aerial applications.
- It will facilitate research grounds to investigate the functioning of unmanned and connected vehicles in a controlled environment by replicating different situations.
- It should be noted that there is no such testbed facility in India to evaluate the autonomous navigation of vehicles.
- TiHAN aims to fill this gap by developing a fully functional and exemplary testbed facility dedicated to connected autonomous vehicles (CAVs).

5.2 PSLV-C53

- ISRO’s flagship rocket PSLV-C53 took the flight with 3 customer satellites from Singapore into Low Earth Orbit from the Second Launch Pad at Satish Dhawan Space Centre, Sriharikota. The mission PSLV-C53/DS-EO was successfully accomplished on 30th June 2022.
- PSLV-C53 carried **three satellites – DS-EO, a 365 kg and NeuSAR, a 155 kg satellite both belonging to Singapore. The third satellite is a 2.8 kg Scoob-1 of Nanyang Technological University (NTU), Singapore.**



- NeuSAR – Singapore’s first small commercial satellite carrying a SAR payload, which is capable of providing images day and night and under all weather conditions.
- SCOOB-I satellite – First satellite in the Student Satellite Series (S3-I), a hands-on student training program from the Satellite Research Centre (SaRC) at Singapore’s NTU School of Electrical and Electronic Engineering.
- ISRO revealed that the DS-EO carries an Electro-Optic, multi-spectral payload that will provide colour images that will further aid in land classification, and serve “Humanitarian Assistance and Disaster Relief needs.”
- PSLV-C53 is the second dedicated commercial mission of the NewSpace Indian Limited (NSIL) and it is designed to orbit the DS-EO satellite along with two other co-passenger satellites from Singapore.
- ISRO put up a new experiment with the four-stage rocket and used the fourth stage (PS4) to perform **PSLV Orbital Experimental Module (POEM)** activity. Under this, the team performed in-orbit scientific experiments using the spent PS4 stage as an orbital platform.
- It is the first time that the PS4 stage would orbit the earth as a stabilized platform. POEM derives the power from the solar panels mounted around the PS4 tank and a Lithium-Ion battery and navigates using four sun sensors, a magnetometer, gyros & NavIC.

5.3 POEM

- The PSLV Orbital Experimental Module is a platform that will help perform in-orbit experiments using the final, and otherwise discarded, stage of ISRO’s workhorse rocket, the Polar Satellite Launch Vehicle (PSLV).
- The PSLV is a four-stage rocket where the first three spent stages fall back into the ocean, and the final stage (PS4) after launching the satellite into orbit ends up as space junk.



- However, in PSLV-C53 mission, the spent final stage will be utilised as a “stabilised platform” to perform experiments.
- POEM is carrying six payloads, including two from Indian space start-ups Digantara and Dhruva Space.

How will ISRO keep POEM ‘alive and stable’ in orbit?

- According to ISRO, POEM has a dedicated Navigation Guidance and Control (NGC) system for attitude stabilisation, which stands for controlling the orientation of any aerospace vehicle within permitted limits. The NGC will act as the platform’s brain to stabilize it with specified accuracy.
- POEM will derive its power from solar panels mounted around the PS4 tank, and a Li-Ion battery. It will navigate using “four sun sensors, a magnetometer, gyros & NavIC”.

Has ISRO repurposed and used PS4 rocket junk earlier?

- The Indian space agency first demonstrated the capability of using PS4 as an orbital platform in 2019 with the PSLV-C44 mission that injected Microsat-R and Kalamsat-V2 satellites into their designated orbits. The fourth stage in that mission was kept alive as an orbital platform for space-based experiments.
- ISRO had said: “Subsequently, the fourth stage (PS4) of the vehicle was moved to a higher circular orbit of 453 km after two restarts of the stage, to establish an orbital platform for carrying out experiments. Kalamsat-V2, a student payload, first to use PS4 as an orbital platform, was taken to its designated orbit about 1 hour and 40 minutes after lift-off.”

5.4 ‘Autonomous Flying Wing Technology Demonstrator’

- Defence Research and Development Organisation (DRDO) carried out the successful maiden flight of the ‘Autonomous Flying Wing Technology Demonstrator’ from the Aeronautical Test Range in Chitradurga, Karnataka.



- Operating in a fully autonomous mode, the aircraft showcased a perfect flight, including take-off, way point navigation and a smooth touchdown.

- Notably, the successful trial of the aerial vehicle marks a major milestone in terms of proving critical technologies towards the development of futuristic unmanned aircraft. It also marks the significant step towards self-reliance in such strategic defence technologies.
- Designed & developed by Aeronautical Development Establishment (ADE), a premier research laboratory of DRDO, the Unmanned Aerial Vehicle is powered by a small turbofan engine. It also consists of an airframe, undercarriage, entire flight control and avionics systems. Notably, all these components have been developed indigenously in India.

5.5 Cervavac

- It is India's first quadrivalent human papillomavirus vaccine (qHPV) vaccine, and is intended to protect women against cervical **cancer**.
- The Serum Institute of India (SII)'s vaccine Cervavac recently received the Drugs Controller General of India's (DGCI) approval for market authorisation.

Note:

A vaccine that works by stimulating an immune response against four different antigens, such as four different viruses or other microorganisms.

- Cervical cancer is preventable, but kills one woman every eight minutes in the country. It is preventable as long as it is detected early and managed effectively.
- Cervical cancer is a common sexually transmitted infection. Long-lasting infection with certain types of HPV is the main cause of cervical cancer.
- Two existing vaccines licensed globally are available in India — a quadrivalent vaccine (Gardasil, from Merck) and a bivalent vaccine (Cervarix, from GlaxoSmithKline). Each dose costs Rs 2,800 per dose (Gardasil) or Rs 3,299 (Cervarix).
- The new vaccine is based on VLP (virus like particles), similar to the hepatitis B vaccine, and provides protection by generating antibodies against the HPV virus's L1 protein.

5.6 Relation between BCG Vaccine and Covid-19

- Scientists have found that countries taking the BCG vaccine, which is being used in India for 72 years, has been helpful in fighting the COVID19 virus. In a study by the Department of Pulmonary, Critical care and Sleep Medicine, AIIMS, doctors have discovered that Higher TB incidence and BCG coverage were associated with lesser incidence of COVID.

What is BCG?

- BCG, short for Bacillus Comet Guerin, is a vaccine to prevent TB and respiratory diseases. It is administered between six months after birth and was first used in the world in 1920.

Report:

- The study conducted by AIIMS in collaboration with WHO suggests that in countries where BCG vaccination is taking place, there are fewer cases of death due to corona.

- BCG vaccination in childhood leads to activation of cell-mediated immunity and provides protection from tuberculosis. Childhood vaccination with BCG has been hypothesized to be protective against COVID19 due to non-specific immune responses including innate and cell-mediated immune responses.

Is there any relationship between COVID-19 & TB?

- The relationship between TB and COVID-19 might be explained by the enhanced innate immune response in individuals with higher community transmission of tuberculosis due to repeated exposures and active immune systems. Various childhood vaccines, including BCG, can produce a non-specific innate immune response, leading to an enhanced response to other pathogens, including SARS viruses.
- In contrast to the adaptive immunity, based on the antigen specificity, innate immune cell populations may exhibit heterologous memory responses triggered upon microbial exposure.
- The study states that many countries with a low tuberculosis burden do not have BCG immunization in their routine schedule, this may be associated with increased incidence and/or severity of COVID-19.

5.7 Marburg virus disease

- It is a Ebola like virus.
- Two cases have been confirmed in **Ghana**.
- Marburg virus disease (MVD), earlier known as Marburg haemorrhagic fever, is a severe, often **fatal hemorrhagic fever**, according to the WHO.
- **Marburg, like Ebola**, is a **filovirus**; and both diseases are clinically similar.
- **Rousettus** fruit-bats are considered the natural hosts for Marburg virus. However, **African green monkeys** imported from Uganda were the source of the first human infection, the WHO points out.
- **It was first detected in 1967** after simultaneous outbreaks in **Marburg** and Frankfurt in Germany; and in Belgrade, Serbia.

Symptoms:

- Initially high fever, muscle aches and severe headache. Around the third day, patients report abdominal pain, vomiting, severe watery diarrhoea and cramping.
- Between days 5 and 7, patients report bleeding from nose, gums and blood appearing in vomits and faeces. Severe blood loss leads to death, often between 8 to 9 days after symptoms begin.
- It is difficult to clinically distinguish MVD from diseases such as malaria, typhoid fever and other viral haemorrhagic fevers.
- However, it is confirmed by lab testing of samples, which like Coronavirus and Ebola are extreme biohazard risk.
- There is no approved antiviral treatment or vaccine for MVD as of now. It can be managed with supportive care. According to the WHO, rehydration with oral or intravenous fluids, and treatment of specific symptoms can help prevent death.

5.8 India's largest floating solar power plant

- Operational at Ramagundam.

Capacity: 100 MW.

The project spreads over 500 acres of its reservoir.

The floating platform comprises a transformer, inverter and a HT breaker.

The solar modules are kept on floaters which are manufactured with HDPE (High Density Polyethylene) material.



Significance of the power plant

- The presence of floating solar panels will reduce evaporation rate from water bodies.
- Thus, it will serve the purpose of water conservation.

NTPC:

- It is a central Public Sector Undertaking (PSU) which comes under Ministry of Power. It was established in 1975 with an aim to boost power development in India. It is India's largest energy conglomerate. It became a Maharatna Company in 2010.

5.9 Kai Chutney

- **Odisha is gearing up to claim a GI tag for Mayurbhanj Kai Chutney.**
- **It is a tribal delicacy made using ants.** They are identified to boost immune device and stay sicknesses at bay.
- The Kai Chutney is wealthy in treasured proteins, zinc, calcium, iron, diet B-12, potassium, magnesium, copper, sodium, fiber and 18 amino acids.
- Weaver **ants** are scientifically called as *Oecophylla smaragdina*. They are abundantly present in Mayurbhanj through the year.
- Larval and adult stages ants are preferred for eating raw or into "chutney form".
- Chutney is used to get rid of flu, whooping cough, common cold, enhance vision and eyesight naturally, to increase appetite, stomach diseases and to treat joints pain.

List of GI tags in India 2022

Products	Categories	States
Kashmir Saffron	Agriculture	Jammu & Kashmir
Manipuri Black Rice	Food Stuff	Manipur
Kandhamal Haladi	Agricultural	Odisha
Rasagola	Food Stuff	Odisha
Kodaikanal Malai Poondru	Agricultural	Tamil Nadu
Pawndum	Handicraft	Mizoram
Ngotekherh	Handicraft	Mizoram
Hmaram	Handicraft	Mizoram
Palani Panchamirtham	Food Stuff	Tamil Nadu
Tawlhlohpuan	Handicraft	Mizoram
Mizo Puanchei	Handicraft	Mizoram
Gulbarga Tur Dal	Agricultural	Karnataka
Tirur Betel Leaf (Tirur Vettala)	Agricultural	Kerala
Khola Chilli	Agricultural	Goa
Idu Mishmi Textiles	Handicraft	Arunachal Pradesh
Dindigul Locks	Manufactured	Tamil Nadu
Kandangi Saree	Handicraft	Tamil Nadu
Srivilliputtur Palkova	Food Stuff	Tamil Nadu
Kaji Nemu	Agricultural	Assam

1. The first GI TAG in India was awarded to Darjeeling Tree In 2003.
2. As of 2022 Karnataka and Tamil Nadu have the highest number of GI Tags - 43 each.

3. The registered GI is valid for 10 years at a time.
4. **Any association of persons, producers, organisations or authority established by or under the law** can apply for GI Tag.
5. This tag is issued by the **Geographical Indication Registry** under the **Department of Industry Promotion and Internal Trade, Ministry of Commerce and Industry**.

5.10 PIVOT

- AN AI program that can detect cancer causing genes.
- It has been developed by IIT, Madras.
- The PIVOT tool was developed on the basis of a machine learning model, which divides genes as tumour oncogenes, suppressor genes, or neutral genes.
- It successfully predicted the oncogenes as well as tumour-suppressor genes such as TP53, and PIK3CA.

Oncogene: it is a gene that can cause cancer.

Ex: N-myc gene.



CAMPUS



CORRIDOR

LECTURE HALL - 1



LIBRARY



LECTURE HALL- 2



CANTEEN



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