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Schemes

1) National Pension System vs. Old Pension Scheme

Context

- Recently, Rajasthan and Chhattisgarh announced the restoration of the old pension scheme (OPS) for state government employees for the year 2022-2023.
- The OPS was removed by the Government of India in 2003. In its place, the National Pension System (NPS) took effect from April 1, 2004.
- Within a year of bringing NPS, almost all the big states implemented it at their level. Till February 28 2022, more than 50 lakh employees of state governments were under NPS, while more than 22 lakh central employees are its beneficiaries.

National Pension System

- NPS, regulated by the **Pension Fund Regulatory and Development Authority (PFRDA),** is a contributory pension scheme under which **employees contribute 10 per cent of their salary.** The **government contributes 14 per cent towards the employees' NPS accounts.**
- Under NPS, **individual savings are pooled into a pension fund** which are invested by PFRDA regulated professional fund managers as per the approved investment guidelines into the **diversified portfolios** comprising **Government Bonds, Bills, Corporate Debentures and Shares.** These contributions would grow and accumulate over the years, depending on the returns earned on the investment made.
- At the time of normal exit from NPS, the subscribers may use the **accumulated pension wealth** under the scheme to purchase a **life annuity** from a **PFRDA empaneled Life Insurance Company** apart from withdrawing a **part of the accumulated pension wealth as lump-sum,** if they choose so.
    - Annuity under the NPS refers to the regular payment to the NPS subscriber after her exit from the scheme.

Eligibility

Citizens:

- A **citizen of India**, whether **resident or non-resident**, between **18 – 60 years of age.**

Central Government Employees:

- The Central Government had introduced the NPS with effect from **January 1, 2004** (**except for armed forces**). Hence, all Central Government employees joining on or after 01-01-2004 are mandatorily covered under NPS.

State Government Employees:

- To be a subscriber under a State Government, the individual has to be employed under the particular State Government. Various State Governments have adopted NPS architecture and implemented NPS with effect from different dates.

Old Pension Scheme

- The OPS, on the other hand, is a **defined benefit scheme** that provides a **pension based on the individual's last drawn salary and the number of years of service.**
- The scheme is **open to government employees who have completed at least 10 years of service.**

Differences

- One of the key differences between the NPS and OPS is the **level of guaranteed pension provided.** Under the NPS, the **government does not provide any guaranteed pension.** Instead, the **pension received is based on the investment returns generated by the pension funds**. Whereas the OPS provides a **guaranteed pension** based on the individual's last drawn salary and the number of years of service.
- Another important difference between the two schemes is the **age limit.** The NPS is **open to citizens between the ages of 18 and 60**, while the OPS is **open to government employees who have completed at least 10 years of service.**

Concerns

- The Reserve Bank of India has cautioned states against reverting to the old pension scheme, stating that it will **add to the fiscal burden of States in the coming years.**
- The RBI warning has come after more states joined the queue to bring back OPS instead of the NPS.
- OPS is considered **fiscally unsustainable**, and state governments do not have the money to fund it. OPS had **no accumulated funds or stock of savings for pension obligations** and hence was a **clear fiscal burden.**
- OPS involved a **direct transfer of resources from the current generation of taxpayers to fund the pensioners.** The scheme is always an attractive dispensation for political parties as the current aged people can benefit from it even though they may not have contributed to the pension kitty.
- NPS is a defined **contribution pension scheme.** NPS enables an individual to undertake retirement planning while in employment.
- NPS is designed to deliver a **sustainable solution of having adequate retirement income in old age or upon superannuation.**

2) Production Linked Incentive Scheme

About the scheme

- The Production Linked Incentive (PLI) aims to give companies **incentives on incremental sales from products manufactured in domestic units.**
- Apart from **inviting foreign companies to set shop in India**, the scheme also aims to **encourage local companies to set up or expand existing manufacturing units.**
- The central government had for the first time notified the PLI scheme for **mobile phones and allied component manufacturing** in 2020.
- Later, the government announced **expansion of the PLI scheme to include more than 10 sectors** including automobile and automobile components, pharmaceutical drugs, textile products, food products, high efficiency solar photo-voltaic modules, white goods such as air conditioners and LED bulbs, speciality steel products, drones and drone components, etc.

Why is the production linked scheme needed?

- The PLI schemes have been introduced as a **key element of the Atma Nirbhar Bharat package** to transform the manufacturing landscape of the Indian economy and integrate it into the global supply chains.

- The strategy behind these schemes is to offer companies **incentives on incremental sales from products manufactured in India, over the base year.**
- They have been specifically designed to **boost domestic manufacturing in sunrise and strategic sectors, curb cheaper imports** and **reduce import bills, improve cost competitiveness** of domestically manufactured goods, and **enhance domestic capacity and exports.**
- PLI Scheme is designed to create a complete component ecosystem in India and make India an **integral part of the global supply chains.**
- The PLI scheme is expected to **boost production worth an estimated $500 billion** in five years since its introduction.

Why in News?

- India's production-linked incentive (PLI) scheme, which aims to make domestic manufacturing globally competitive, has attracted investment worth over Rs 45,000 crore and has also created three lakh jobs.

3) Samagra Shiksha

About the Scheme

- Samagra Shiksha is an overarching programme for the school education sector extending from **pre-school to class 12.** The **centrally sponsored scheme** has been prepared with the broader goal of improving school effectiveness measured in terms of equal opportunities for schooling and equitable learning outcomes.
- It subsumes the three Schemes of **Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE).**
- The Integrated Scheme **envisages the 'school' as a continuum** from pre-school, primary, upper primary, secondary to senior secondary levels.
- It was introduced in the Union Budget, 2018-19.

Objectives

- The major objectives of the Scheme are
    - Provision of **quality education** and enhancing **learning outcomes** of students;
    - Bridging **Social and Gender Gaps** in School Education;
    - Ensuring **equity and inclusion** at all levels of school education;
    - Ensuring **minimum standards** in schooling provisions;
    - Promoting **Vocationalisation of education** and
    - Support States in implementation of **Right of Children to Free and Compulsory Education (RTE) Act, 2009;**
- The scheme is in accordance with **Sustainable Development Goal for Education (SDG-4)** to ensure inclusive and equitable, quality and holistic school education.

Funding

- The fund sharing pattern for the scheme between **Centre and States** is at present in the ratio of **90:10** for the **8 North-Eastern States** and **3 Himalayan States** and **60:40 for all other States and Union Territories with Legislature.**
- It is **100% centrally sponsored for Union Territories without Legislature.**

Why in News?

- The Union Ministry of Education has proposed an allocation of ₹1,181 crore for Punjab under the Samagra Shiksha programme for school education.

4) Swadesh Darshan Scheme

About Swadesh Darshan

- The Swadesh Darshan Scheme was launched by the **Ministry of Tourism** in 2014.
- It aims to develop **theme-based tourist circuits** in the country. These tourist circuits will be developed on the principles of high tourist value, competitiveness and sustainability in an integrated manner.
- It is a **Central Sector Scheme** and **completely funded by the central government of India.**
- Efforts are made to achieve convergence with other schemes of Central and State Governments and also to leverage the voluntary funding available for Corporate Social Responsibility (CSR) initiatives of Central Public Sector Undertakings and Corporate Sector.

The scheme has following objectives:

- Position tourism as a major engine of economic growth and job creation;
- Develop circuits having tourist potential in a planned and prioritized manner;
- Promote cultural and heritage value of the country to generate livelihoods in the identified regions;
- Follow community based development and pro-poor tourism approach;
- Create employment through active involvement of local communities;
- Projects under the scheme shall be under the following identified themes; **Eco-tourism, Wildlife, Buddhist, Desert, Spiritual, Ramayana, Krishna, Coastal, Northeast, Rural, Himalayan, Tribal and Heritage.**

Swadesh Darshan 2.0

- The Ministry of Tourism has revamped its Swadesh Darshan scheme as **Swadesh Darshan 2.0** for **development of sustainable and responsible tourist destinations.**
- The Swadesh Darshan 2.0 scheme envisages an **increase in private sector investment** in tourism & hospitality.
- It would help in **increasing Public Private Partnerships (PPP)** in the field of tourism and operation and maintenance of the created assets under the scheme.

Why in News?

- The Ministry of Tourism under its Swadesh Darshan scheme has sanctioned 4 projects under Tribal Theme and 2 projects under Rural Theme in the country.

5) Pradhan Mantri Khanij Kshetra Kalyan Yojana

About PMKKKY

- Launched in 2015, the Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY) is meant to provide for the **welfare of areas and people affected by mining related operations.**

Objectives

- The overall objective of PMKKKY scheme include
  - to implement various **developmental and welfare projects/programs in mining affected areas**, and these projects/ programs will be complementing the existing ongoing schemes/projects of State and Central Government;

  - to **minimize/mitigate the adverse impacts**, during and after mining, on the environment, health and socio-economics of people in mining districts; and
  - to ensure **long-term sustainable livelihoods** for the affected people in mining areas.

Implementation

- PMKKKY is implemented by the **District Mineral Foundations (DMFs)** of the respective districts using the funds accruing to the DMF.
- Where mining leases are granted after 2015, miners will have to contribute an **amount equal to 10% of the royalty payable by them to the DMFs.**
- Using the funds generated by this contribution, the DMFs are expected to implement the PMKKKY.
- **At least 60% of PMKKKY funds will be utilized for high priority areas** like: (i) drinking water supply; (ii) environment preservation and pollution control measures; (iii) health care (iv)education; (v) welfare of women and children; (vi) welfare of aged and disabled people; (vii) skill development; and (viii) Sanitation.
- The rest of the funds will be utilized **undertaking works** like for: (i) physical infrastructure; (ii) irrigation; (iii) energy and watershed development; and (iv) any other measures for enhancing environmental quality in mining districts.

Why in News?

- More than 2,50,000 projects have been sanctioned under the Pradhan Mantri Khanij Kshetra Kalyan Yojana.
- The Centre launched PMKKKY to provide for the welfare of areas and people affected by mining-related operations, using the funds generated by District Mineral Foundations (DMFs).

About DMFs

- The **Mines and Minerals (Development & Regulation) Amendment Act, 2015**, mandated the setting up of District Mineral Foundations in **all districts in the country affected by mining related operations.**
- The amendment introduced Section 9 B which provides for setting up of DMF, a **trust as non-profit body, in all districts affected by mining-related operations.**
- A DMF works for the interest and benefit of people and areas affected by mining.
- DMFs have been formed in 622 districts spread across 23 states.

6) Rashtriya Uchchatar Shiksha Abhiyan

About the Scheme

- Rashtriya Uchchatar Shiksha Abhiyan (RUSA) is a Centrally Sponsored Scheme which aims at **providing strategic funding to eligible state higher educational institutions.**
- The **Ministry of Education** is the nodal agency administering the program.

Funding

- The Central Funding (in the ratio of 90:10 for North-Eastern States, Sikkim, Jammu and Kashmir, Himachal Pradesh and Uttarakhand and 65:35 for Other States and UTs) would be **norm based and outcome dependent**.
- The Funding would flow from the Central Ministry through the State Governments/ Union Territories to

the State Higher Education Councils before reaching the identified Institutions.
- The Funding to States would be made on the basis of **critical appraisal of State Higher Education Plans**, which would describe each State's strategy to address issues of equity, access and excellence in Higher Education.

Vision

- To attain higher levels of access, equity and excellence in the State higher education system with greater efficiency, transparency, accountability and responsiveness.
- With the assistance under RUSA Scheme, the state envisions an increase in the Gross Enrolment Ratio [G.E.R.], quality, access and equity in higher education and to build a system that is not only responsible for producing bright minds but can also support sophisticated research in a number of scientific and scholarly fields.

Priorities and Strategies

- The priorities of the state are:
    - Quality Assurance
    - Access and Equity
    - Infrastructure Development
    - Faculty Recruitment
    - Research and innovation.

Why in News?

- The Government has approved the scheme of Rashtriya Uchchatar Shiksha Abhiyan (RUSA) for continuation till 31.03.2026 or till further review, whichever is earlier.

Focus Areas

- New phase of RUSA targets to reach out the unserved, underserved areas; remote/ rural areas; difficult geographies; LWE areas; North Eastern Region; aspirational districts, tier-2 cities, areas with low Gross Enrolment Ratio etc., and to benefit the most disadvantaged areas and Socio-Economically Disadvantaged Groups (SEDGs).
- Under the new phase of the scheme, State Governments will be supported for Gender inclusion, Equity Initiatives, ICT, Enhancing employability through vocationalisation & skill upgradation. States will also be supported for creation of new Model Degree Colleges.
- State Universities will be supported for Multi-Disciplinary Education and Research.

7) Grameen Udyami Scheme

About

- The Grameen Udyami Scheme was launched to **augment skill training in tribal communities** for their inclusive and sustainable growth.
- Under the programme, the endeavor is to **multi-skill India's youth and impart functional skills** to them for enabling livelihoods.
- It was launched by the **National Skill Development Corporation (NSDC)** in 2022.
- The Grameen Udyami initiative will provide India’s tribal population with **economic empowerment.**
- This initiative is integral to increasing tribal ownership and raising awareness of such initiatives and activities.

Why in News?

- Over 200 tribal women who had completed their skills training under Phase 3 of the Grameen Udyami Scheme, were awarded their certificates recently.

8) Atal Mission for Rejuvenation and Urban Transformation

About AMRUT

- To recast the urban landscape of the country, to make urban areas more livable and inclusive besides driving economic growth, the Government of India launched a **centrally sponsored scheme** namely Atal Mission for Rejuvenation and Urban Transformation (AMRUT) in 2015.
- It is implemented under the **Ministry of Housing & Urban Affairs.**
- AMRUT seeks to lay a foundation to **enable cities and towns to eventually grow into smart cities.**
- The purpose of AMRUT is to
  - Ensure that every household has **access to a tap with the assured supply of water** and a **sewerage connection.**
  - **Increase the amenity value of cities** by developing greenery and well maintained open spaces (e.g. parks) and
  - **Reduce pollution** by switching to public transport or constructing facilities for non-motorized transport (e.g. walking and cycling).
- The **Priority zone** of the Mission is water supply followed by sewerage.

Components

- The components of the AMRUT consist of capacity building, reform implementation, water supply, sewerage and septage management, storm water drainage, urban transport and development of green spaces and parks.

Coverage

- **Five hundred cities** have been selected under AMRUT.

Approach

- Implementation of this Mission will be **linked to promotion of urban reforms** such as
  - e-governance,
  - constitution of professional municipal cadre,
  - devolving funds and functions to urban local bodies,
  - review of Building bye-laws,
  - improvement in assessment and collection of municipal taxes,
  - credit rating of urban local bodies,
  - energy and water audit and
  - citizen-centric urban planning.

Funding

- Central assistance will be to the **extent of 50 percent of project cost** for cities and towns with a **population of up to 10 lakh** and **one-third** of the project cost for those with a **population of above 10 lakh.**
- Central assistance will be released in **three instalments in the ratio of 20:40:40** based on achievement of milestones indicated in **State Annual Action Plans.**

AMRUT 2.0

- AMRUT 2.0 was launched on October 1, 2021 for a period of five years starting from the financial year 2021-22 to 2025-26.
- AMRUT 2.0 aims to provide **100% coverage of water supply to all households** in around 4,700 urban local bodies by providing about 2.68 crore tap connections and **100% coverage of sewerage and septage** in 500 AMRUT cities by

providing around 2.64 crore sewer/ septage connections.

- The scheme will adopt the **principles of circular economy** and promote conservation and rejuvenation of surface and groundwater bodies.
    - *A circular economy is an economic model designed to minimize resource input, as well as waste and emission production.*
    - *Circular economy aims to reach the maximum efficiency in the use of finite resources, the gradual transition to renewable resources, and recovery of the materials and products at the end of their useful life. Essentially, a circular economy describes a regenerative economic system.*

Why in News?

- The Ministry of Housing and Urban Affairs has so far approved 6,527 projects under the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) 2.0.

9) PMGDISHA

Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA)

- In order to **impart digital literacy in the rural areas**, in 2017, PMGDISHA was launched by the **Ministry of Electronics and Information Technology** with the aim to **empower at least one person per rural household with crucial digital literacy skills.**
- The Scheme envisages to **make six crore persons in rural areas**, across States/UTs, **digitally literate**, reaching to around 40% of rural households.
- The scheme aims at bridging the **rural-urban digital divide**, with special emphasis on marginalised sections of society.
- The Scheme would empower the citizens in rural areas by training them to operate computer or digital access devices (like tablets, smart phones etc.), send and receive e-mails, browse Internet, access Government services, search for information, undertake digital payment etc. and hence enable them to use Information Technology and related applications especially Digital Payments to actively participate in the process of nation building.
- The scheme is implemented by **CSC e-Governance Services India Limited,** a Special Purpose Vehicle set up by the **Ministry of Electronics & IT**, with active collaboration of all the State Governments and UT Administrations.

Why in News?

- More than 6 crore candidates have been enrolled for digital literacy training under the PMGDISHA initiative.

Initiatives

1) Pravasi Bhartiya Diwas

About PBD

- Pravasi Bharatiya Divas (PBD) Convention is the flagship event of the **Ministry of External Affairs.** It provides an important platform to engage and connect with the **overseas Indians.**
- It is **celebrated on January 9 once every two years** to strengthen the engagement of the overseas Indian community with the Government of India and reconnect them with their roots.
- The day commemorates the return of **Mahatma Gandhi** from South Africa to Mumbai on 9 January 1915.
- The first Pravasi Bharatiya Divas was organized in 2003.

Pravasi Bharatiya Samman Award

- The Pravasi Bharatiya Samman Award (PBSA) is the highest honour conferred on overseas Indians.
- The award is to commemorate the contribution of the Indian diaspora to create a better understanding of India abroad, support India's causes and work for the welfare of the local Indian community.
- PBSA is conferred by the **President of India** as a part of the Pravasi Bharatiya Divas Conventions.

Why in News?

- The latest edition of Pravasi Bharatiya Diwas was celebrated on January 9, 2023.

2) Aspirational Districts Programme

About the programme

- Launched in 2018, the Aspirational Districts Programme (ADP) is one of the largest experiments on **outcomes-focused governance** in the world.
- The ADP is **NITI Aayog's** flagship initiative to **uplift those backward 112 districts that are lagging behind in specific development parameters** of health and nutrition, education, agriculture and water resources, financial inclusion, skill development, and basic infrastructure.

Core Strategy

- The broad contours of the programme are **Convergence** (of Central & State Schemes), **Collaboration** (of Central, State level 'Prabhari' Officers & District Collectors), and **Competition** among districts driven by a spirit of mass Movement.
- With States as the main drivers, this program focuses on the strength of each district, identifies low-hanging fruits for immediate improvement, measures progress, and ranks districts.

Selection of districts

- **112 districts** were identified using a composite index of key data sets that included deprivation enumerated under the Socio-Economic Caste Census, key health and education sector performance and state of basic infrastructure.

Institutional framework

- **NITI Aayog** anchors the programme with support from Central Ministries and the State Governments.
- Officers at the level of Joint Secretary / Additional Secretary have been nominated to become the **'Central Prabhari Officers'** of each district.
- States have appointed **state-nodal and Prabhari officers.**
- An **Empowered Committee** under the Convenorship of the CEO, NITI Aayog helps in the convergence of

various government schemes and streamlining of efforts.

Focus Areas

- To enable optimum utilization of their potential, this program focuses closely on improving people's ability to participate fully in the vibrant economy.
- **Health & Nutrition, Education, Agriculture & Water Resources, Financial Inclusion & Skill Development, and Basic Infrastructure** are this programme's core areas of focus.

Baseline Ranking

- The objective of the program is to **monitor the real-time progress** of aspirational districts based on 49 indicators (81 data-points) from the **5 identified thematic areas** - Health & Nutrition, Education, Agriculture & Water Resources, Financial Inclusion & Skill Development and Infrastructure.
- Districts are aspiring to first catch-up with the best district within their State, and subsequently aspire to become one of the best in the country, by competing with, and learning from others in the spirit of **competitive & cooperative federalism.**

Why in News?

- The Government has called upon bankers to ensure availability of at least one banking outlet within five kilometers of all inhabited villages in aspirational districts to further increase credit penetration.

3) Khelo India

Khelo India Scheme

- The Khelo India programme has been introduced to **revive the sports culture in India at the grass-root level** by building a strong framework for all sports played in our country.
- It is implemented by the **Ministry of Youth Affairs and Sports**.
- It was launched in the year 2018.
- Under the scheme, talented players identified in priority sports disciplines at various levels (by the High-Powered Committee) will be provided **annual financial assistance of 5 lakh per annum for 8 years.**

Why in News?

- The Khelo India Youth Games, under the Khelo India programme, was recently inaugurated in Madhya Pradesh.
- Khelo India School Games aims at strengthening the sports ecosystem by promoting the twin objectives of mass participation and promotion of excellence in sports.
- It acts as an avenue for identification of budding sports talent in specific disciplines.

4) National Disaster Management Authority

About NDMA

- The National Disaster Management Authority (NDMA) is a **statutory body** constituted under the Disaster Management Act 2005, with the **Prime Minister of India** as its Chairman, a Vice Chairman with the status of Cabinet Minister, and eight members with the status of Ministers of State.
- The Disaster Management Act also has statutory provisions for the constitution of the **National Disaster Response Force** for the purpose of specialized response to natural and man-made disasters.
- The NDMA is the **apex statutory body for disaster management in India.** It is under the **control of the Ministry of Home Affairs (MHA).**

National Disaster Management Plan

- The National Disaster Management Plan (NDMP) provides a framework and direction to the government agencies for all phases of the disaster management cycle. The plan is prepared by the National Disaster Management Authority.
- The NDMP has been aligned broadly with the goals and priorities set out in the **Sendai Framework for Disaster Risk Reduction.**

About SDRF

- State Disaster Response Fund (SDRF) is constituted under the **Disaster Management Act 2005.**
- It is a primary fund available with the **State Government for responses to notified disasters.**
- The **Central Government contributes 75% of SDRF allocation for general category** States/UTs and **90% for special category States** (North Eastern States, Sikkim, Uttarakhand, Himachal Pradesh and Jammu & Kashmir).
- The annual Central contribution is released in two equal installments as per the **recommendation of the Finance Commission.**
- SDRF shall be used only for meeting the expenditure for providing **immediate relief to the victims.**
- The accounts of the SDRF shall be audited annually by **Comptroller & Auditor General of India (CAG).**
- **Disasters covered under SDRF:** Cyclone, Drought, Earthquake, Floods, Tsunami, Hailstorm, Landslide, Avalanche, Cloud burst, Pest attack, Frost and Cold wave.

Local Disaster

- State Government may use up to **10% of the funds** available under SDRF for providing immediate relief to the victims of the natural disaster that day considered to be **"Disaster" within the local contacts** in the State and which is not included in the notified list of disaster of the Ministry of Home Affairs (MHA).

Why in News?

- The National Disaster Management Authority conducted a national workshop on the topic of heatwaves.

Related Information

Sendai Framework for Disaster Risk Reduction 2015-2030

- The Sendai Framework is a **15-year, voluntary, non-binding agreement** which recognizes that the State has the primary role to reduce disaster risk, but that responsibility should be shared with other stakeholders including local governments, the private sector, the scientific community and NGOs.
- It lists **priority areas for action** such as:
    - understanding disaster risk,
    - strengthening disaster risk governance to manage disaster risk,
    - investing in disaster risk reduction for resilience and
    - enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction.
- It aims to achieve the substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries over the next 15 years (2015-2030).
- The Framework was adopted at the **Third UN World Conference**

on Disaster Risk Reduction in Sendai, Japan, in 2015. **India** is a signatory to the agreement.

5) Mission Karmayogi

About the programme

- Launched in 2020, Mission Karmayogi is a nationwide programme to lay the **foundation for capacity building of civil servants.** It will help the officers to learn about the best practices across the world.
- Officially called the "**National Programme for Civil Services Capacity Building (NPCSCB)**", the mission plans to **transform human resource management in the country.**
- Mission Karmayogi aims to prepare the Indian civil servant for the future by making him more creative, constructive, imaginative, innovative, proactive, professional, progressive, energetic, enabling, transparent and technology-enabled.
- The fundamental focus of the reform is the creation of a **'citizen centric civil service'** capable of creating and delivering services conducive to economic growth and public welfare.
- It shifts the focus from "**Rule based training to Role based training".** Greater thrust has been laid on **behavioural change.**

Unfolding of Mission Karmayogi

- Mission Karmayogi programme will be delivered by setting up a digital platform called **iGOTKarmayogi.**
- The platform will act as a launchpad for the National Programme for Civil Services Capacity Building, which will enable a comprehensive reform of the capacity building apparatus at the individual, institutional and process levels.
- **NPCSCB** will be **governed by the Prime Minister's Human Resource Council,** which will also include state Chief Ministers, Union Cabinet ministers and experts. This council will approve and review civil service capacity building programmes.
- Besides this, there will be a **Cabinet Secretary Coordination Unit** comprising select secretaries and cadre controlling authorities.
- Also, there will be a **Capacity Building Commission**, which will include experts in related fields and global professionals. This commission will prepare and monitor annual capacity building plans and audit human resources available in the government.
- There will be a wholly-owned **Special Purpose Vehicle (SPV), which will govern the iGOT-Karmayogi platform.**
- The SPV will be a **"not-for-profit" company** which will create and operationalise the content, market place and manage key business services of iGOT-Karmayogi platform.

Why in News?

- Under the Mission Karmayogi programme, sessions and modules are being created for government departments to not just respond to grievances in the most efficient and effective way but also give a human touch to the interface with the public.

Environment

1) National Green Hydrogen Mission

Hydrogen

- Hydrogen is a **colourless, odourless, tasteless, non-toxic and highly combustible gaseous substance**. It is also the **lightest, simplest and most abundant member** of the family of chemical elements in the universe.
- Hydrogen is a **clean fuel** and an efficient energy carrier. It is emerging as an important source of energy since it has **zero carbon content** in contrast to hydrocarbons which have net carbon content between 75 and 85 per cent. When burnt, Hydrogen produces **water as a by-product** and is, therefore, **environmentally benign.**
- It has **huge potential in the transportation sector as a direct replacement to fossil fuels,** as it is possible to store hydrogen on-board.

How is Hydrogen Generated?

- Hydrogen (H_2) is one of the most abundant elements available on earth. However, it is **not found in elemental form.**
- The richest source of hydrogen is **water**. Hydrogen is also found in **organic compounds and fossil fuels** like petroleum, natural gas, coal and biomass.
- Hydrogen for commercial use is produced from **catalytic steam reforming of natural gas, naphtha and other hydrocarbons, partial oxidation of hydrocarbons, gasification of coal and electrolysis of water.**
- The energy industry refers to different “types” of hydrogen to differentiate how it is produced.

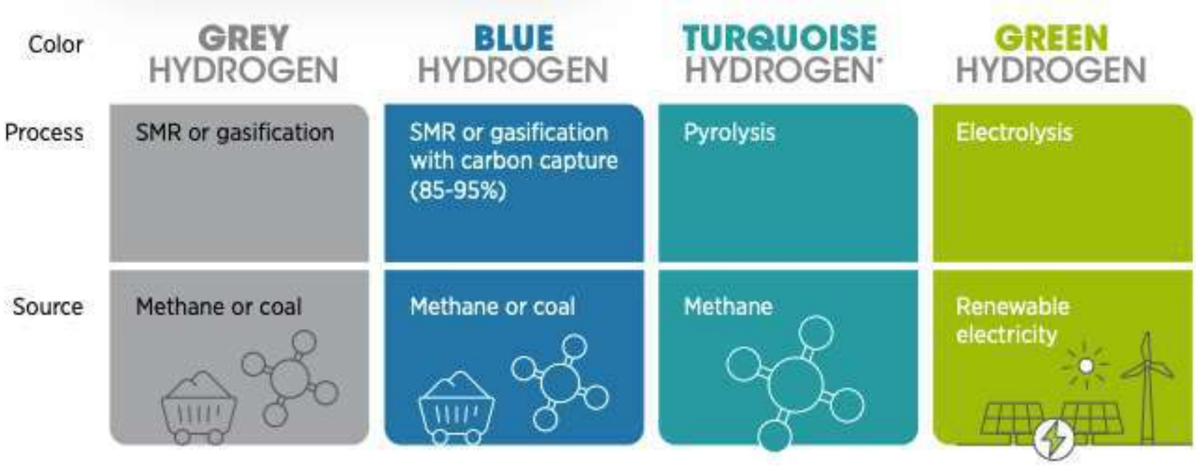
What is Green Hydrogen?

- Green hydrogen is produced through **electrolysis using renewable sources of energy** such as solar, wind or hydel power. It is produced by splitting water into hydrogen and oxygen using renewable electricity.
- That makes green hydrogen the **cleanest option** – hydrogen from renewable energy sources **without CO_2 as a by-product.**

Other Types of Hydrogen

- Hydrogen can be **‘grey’, ‘brown’, ‘Turquoise’ and ‘blue’** too.
  - The vast majority of industrial hydrogen is currently produced from natural gas through a conventional process known as **steam methane reforming (SMR).** The standard SMR process produces what is known as **Grey Hydrogen** and has the **major disadvantage of releasing large quantities of by-product CO_2** into the atmosphere - the main culprit for climate change.
  - Grey hydrogen has increasingly been produced also from **coal**, with significantly higher CO_2 emissions per unit of hydrogen produced so much that it is often called **brown or black hydrogen** instead of grey.
  - **Blue hydrogen**, too, is produced using electricity generated by burning **methane or coal** but with **technologies to prevent the carbon released** in the process from entering the atmosphere;

  - **Turquoise hydrogen** is made using a process called **methane pyrolysis** to produce hydrogen and **solid carbon.** As a result, there is no requirement for carbon capture and storage (CCS) and the carbon can even be used in other applications. Where the electricity driving the pyrolysis is renewable, the process is **zero-carbon**.



Color	GREY HYDROGEN	BLUE HYDROGEN	TURQUOISE HYDROGEN*	GREEN HYDROGEN
Process	SMR or gasification	SMR or gasification with carbon capture (85-95%)	Pyrolysis	Electrolysis
Source	Methane or coal	Methane or coal	Methane	Renewable electricity

Note: SMR = steam methane reforming.
** Turquoise hydrogen is an emerging decarbonisation option.*

Why in News?

- The Union Cabinet has approved the National Green Hydrogen Mission to **promote green hydrogen** in a bid to **cut emissions** and **become a major exporter** in the field.

Highlights of the Mission

- The overarching objective of the Mission is to **make India the Global Hub for production, usage and export of Green Hydrogen and its derivatives.**
- The Mission will **build capabilities to produce at least 5 Million Metric Tonne (MMT) of Green Hydrogen per annum by 2030**, with potential to reach 10 MMT per annum with growth of export markets.
- Innovative models to source Green Hydrogen through use of **decentralized renewable energy generation** such as rooftop solar and small/micro hydel plants will also be explored.
- Under the **Strategic Interventions for Green Hydrogen Transition Programme (SIGHT),** two distinct financial incentive mechanisms – targeting **domestic manufacturing of electrolysers** and **production of Green Hydrogen** – will be provided under the Mission.
- Regions capable of supporting large scale production and/or utilization of Hydrogen will be identified and developed as **Green Hydrogen Hubs.**
- An **enabling policy framework** will be developed to support establishment of the Green Hydrogen ecosystem. A **robust Standards and Regulations framework** will also be developed.
- Further, a public-private partnership framework for R&D **(Strategic Hydrogen Innovation Partnership – SHIP)** will be facilitated under the Mission.
- A **coordinated skill development programme** will also be undertaken under the Mission.

- The **Ministry of New & Renewable Energy** will be responsible for overall coordination and implementation of the Mission.

Mission Components

- The Mission strategy accordingly comprises interventions for:
    - **demand creation** by making Green Hydrogen produced in India competitive for exports and through domestic consumption.
    - **addressing supply side constraints** through an incentive framework, and
    - **building an enabling ecosystem** to support scaling and development.

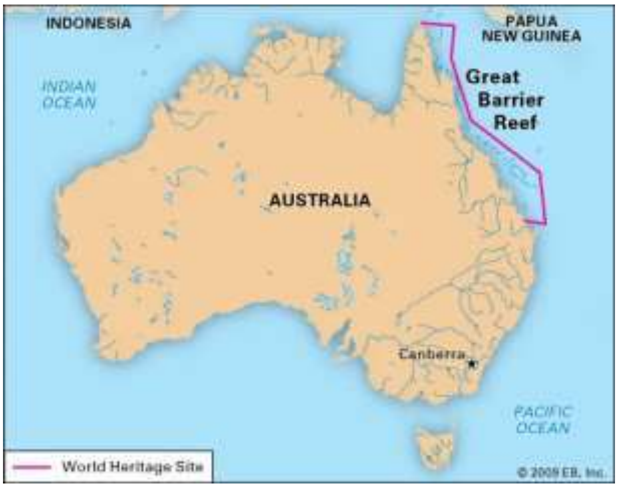
Expected Benefits

- The targets by 2030 are likely to bring in **over Rs. 8 lakh crore investments** and create **over 6 lakh jobs.**
- Nearly **50 MMT per annum of CO2 emissions are expected to be averted** by 2030.
- This will contribute to India's aim to become **Aatmanirbhar (self-reliant) through clean energy** and **achieve net-zero carbon emissions by 2070.**

2) Great Barrier Reef risks in danger World Heritage listing

About Great Barrier Reef

- The Great Barrier Reef is the **world's largest coral reef system** composed of over 2,900 individual reefs and 900 islands stretching for over 2,300 kilometres over an area of approximately 3.4 lakh square kilometres.
- It is found in the northeastern coast of **Australia.**
- It has a geological history going back an estimated 23 million years to the Miocene epoch, and has survived many challenges.
- It has been on **UNESCO's World Heritage Site List** since 1981.
- It also holds great scientific interest as the habitat of species such as the **dugong** ('sea cow') and the **large green turtle**, which are threatened with extinction.



Why in News?

- A UNESCO's study revealed that the world's biggest coral reef system, the Great Barrier Reef, is facing severe challenges due to climate catastrophe.
- The Great Barrier Reef has been facing several **bleaching events.** Scientists found that since 1950, the **area of surviving coral has decreased by half** due to overfishing, climate change, and pollution.
- The reef faces significant risks that might harm its intrinsic qualities, and the study recommended its **inclusion on the World Heritage in danger list.**

List of World Heritage in Danger

- The List of World Heritage in Danger is designed to inform the international community of **conditions which threaten the very characteristics for which a property was inscribed** on the World Heritage List, and to **encourage corrective action.**

- The **World Heritage Committee** may decide to remove a site from the Danger List once it meets the criteria set out in the "Desired State of Conservation for Removal from the List of World Heritage in Danger" and its **natural values are restored.**
    - *Refer Pulse November At A Glance 2022 edition for more details on UNESCO World Heritage sites.*

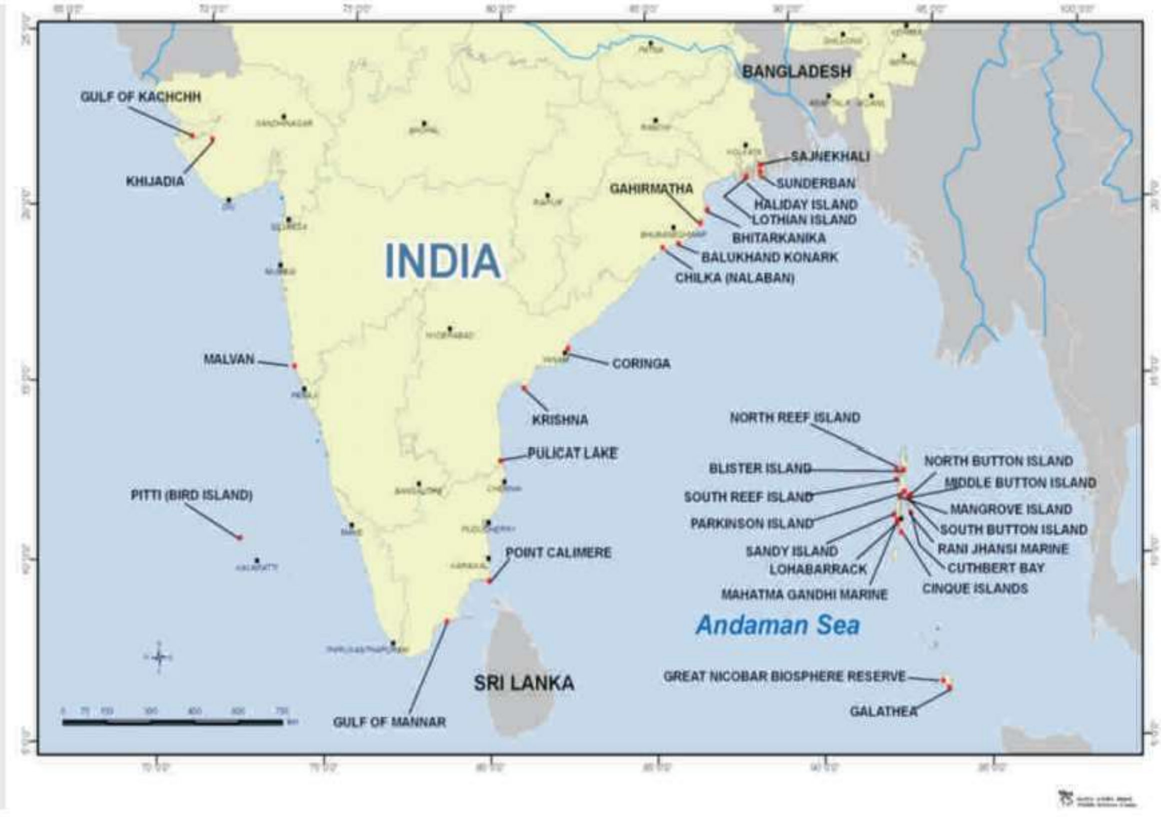
3) Marine Protected Areas

What are Marine Protected Areas?

- Marine Protected Areas (MPAs) are **specially designated regions of the ocean** that are protected for the conservation and preservation of marine ecosystems and their diverse species of flora and fauna.
- MPAs are essentially a space in the ocean where **human activities are more strictly regulated than the surrounding waters** - similar to parks we have on land.
- These protected areas serve a crucial role in maintaining the health and balance of the marine environment and its inhabitants.
- To achieve their conservation objectives, MPAs can **limit or prohibit certain human activities**, such as fishing, oil and gas exploration, and construction, within their boundaries.

Regulations in India

- There are a total of 31 major Marine Protected Areas in India covering coastal areas that have been notified under **Wildlife Protection Act, 1972.**
- MPAs occupy **less than 4.01% of the total area of all Protected Areas** in India.
- The **Gulf of Kachchh Marine National Park** (Gujarat), **Gulf of Mannar National Park** (Tamil Nadu) and **Sundarbans National Park** (West Bengal) are some of the important MPAs of India.


GULF OF KACHCHH
KHIJADIA
BANGLADESH
SAJNEKHALI
SUNDERBAN
GAHIRMATHA
HALIDAY ISLAND
LOTHIAN ISLAND
BHITARKANIKA
BALUKHAND KONARK
CHILKA (NALABAN)
INDIA
MALVAN
CORINGA
KRISHNA
PULICAT LAKE
PITTI (BIRD ISLAND)
POINT CALIMERE
NORTH REEF ISLAND
BLISTER ISLAND
SOUTH REEF ISLAND
PARKINSON ISLAND
SANDY ISLAND
LOHABARRACK
MAHATMA GANDHI MARINE
NORTH BUTTON ISLAND
MIDDLE BUTTON ISLAND
MANGROVE ISLAND
SOUTH BUTTON ISLAND
RANI JHANSI MARINE
CUTHBERT BAY
CINQUE ISLANDS
Andaman Sea
SRI LANKA
GULF OF MANNAR
GREAT NICOBAR BIOSPHERE RESERVE
GALATHEA

Why are MPAs crucial?

- MPAs serve a crucial role in **conserving marine biodiversity, regulating fishing practices, mitigating climate change, promoting research and education, and providing economic benefits.**
- Additionally, MPAs act as **carbon sinks**, absorbing and storing carbon dioxide from the atmosphere and mitigating the impacts of climate change on marine ecosystems.
- Further, they **contribute to local economies** through sustainable tourism, recreation, and supporting local fishing communities.

Why in News?

- The 5th International Marine Protected Areas Congress (IMPAC5) took place in Canada with the objective of addressing the Funding Gap in Marine Protected Areas.
    - *IMPAC is a global forum that brings together ocean conservation professionals and high-level officials to inform, inspire and act on marine protected areas.*
- The Funding Gap refers to the shortage of financial resources needed to effectively manage and conserve MPAs.

Related Information

About WPA

- The Wildlife Protection Act (WPA), 1972 was enacted for **protection of plants and animal species.** The Act divides species into **'schedules'** ranked from **I to VI.**
- Out of the six schedules, **Schedule I and Schedule II** species are afforded the highest levels of protection under the law as they are extremely rare, endemic, or endangered. Species under **Schedules III and IV** are also protected, but the penalties are lower.
- Under Section 62 of WPA, the **Central Government** may, on the requests from the respective States, declare any wild animal **other than those specified in Schedule I & Part II of Schedule II** (that lists most endangered and iconic species like tigers, leopards, and elephants) of the law to be **vermin** for any area for a given period of time for selective slaughter.
- As long as the notification is in force such wild animals shall be included in **Schedule V** of the law, depriving them of any protection under that law.
- A species is declared as vermin
    - if they have become dangerous to human life or property, or
    - if they have become so disabled or diseased as to be beyond recovery.
- **No person is allowed to cultivate a specified plant** mentioned in **schedule VI,** except with a licence granted by the **competent authority.** It includes plants such as
    - Beddomes' cycad (Cycas beddomei).
    - Blue Vanda (Vanda eoerulea).
    - Kuth (Saussurea costus).
    - Ladies slipper orchids (Paphiopedilium spp.).
    - Pitcher plant (Nepenthes khasiana).
    - Red Vanda (Rananthera imschootiana).

Agriculture

1) Kisan Rail Services

About

- Kisan Rail service was announced in the Union Budget 2020-21 to **provide better market opportunity by transporting perishables and agri-products**, including milk, meat, and fish.
- This is a multi-commodity, multi-consignor/consignee, multi-loading/unloading transportation product which is aimed at providing a wider market to Kisan.
- This service helps in bringing perishable agricultural products like vegetables, fruits to the market in a short period of time. The trains with **frozen containers** are expected to build a seamless national cold supply chain for perishables, inclusive of fish, meat and milk.
- The primary objective of running Kisan Rail trains is to **increase the income in the farm sector by connecting production centers to markets and consumption centers.**
- The first Kisan Rail train was flagged-off on 07.08.2020 between Devlali (Maharashtra) and Danapur (Bihar).

Why in News?

- Indian Railways operated nearly 2,359 Kisan Rail services till January 2023. It transported around 7.9 lakh tonnes of perishables from one place to another.

2) Rashtriya Gokul Mission

About RGM

- The Rashtriya Gokul Mission (RGM) is being implemented for **development and conservation of indigenous bovine breeds** since 2014.
- The scheme is important in **enhancing milk production and productivity of bovines** to meet growing demand of milk and making dairying more remunerative to the rural farmers of the country.
- The RGM will result in enhanced productivity and benefit of the programme, percolating to all cattle and buffaloes of India especially with small and marginal farmers.
- This programme will also **benefit women in particular** since over 70% of the work involved in livestock farming is undertaken by women.
- Under RGM, **Integrated cattle development centers**, known as **'Gokul Grams'** are established with the aim of conservation and development of indigenous bovine breeds in a scientific and holistic manner.
- RGM is implemented by the **Department of Animal Husbandry and Dairying** under the **Ministry of Fisheries, Animal Husbandry & Dairying.**

Objectives

- To **enhance productivity of bovines and increase milk production** in a sustainable manner using advance technologies.
- To propagate **use of high genetic merit bulls for breeding purposes.**
- To **enhance Artificial insemination coverage** through strengthening breeding network and delivery of Artificial insemination services at farmers doorstep.
- To **promote indigenous cattle & buffalo rearing and conservation** in a scientific and holistic manner.

Why in News?

- The Department of Animal Husbandry & Dairying, under Rashtriya Gokul Mission has released funds for setting up of 16 "Gokul Grams" with the aim of conservation and development of indigenous bovine breeds in a scientific and holistic manner.

Economy

1) Appointment of RBI Deputy Governor

About RBI

- The Reserve Bank of India was established on **April 1, 1935** in accordance with the provisions of the **Reserve Bank of India Act, 1934.**
- Though originally privately owned, since **nationalisation in 1949**, the Reserve Bank is **fully owned by the Government of India.**

Central Board of Directors

- The Reserve Bank's affairs are governed by a **Central Board of Directors.**
- Section 8(1)(a) of the Reserve Bank of India Act, 1934, provides that **there shall be one Governor and not more than four Deputy Governors** to be appointed by the **central government** on the central board of RBI.
- **Functions:** General superintendence and direction of the Bank's affairs.

Appointments

- The RBI governor is appointed by the **Prime Minister's office** on the recommendation of the **Union Finance Minister.**
- Deputy Governors are appointed on the basis of the **Appointment Committee of Cabinet** (ACC)-approved guidelines, which stipulate that the search committee constituted for the purpose will recommend the person to be appointed as a Deputy Governor.

Appointment Committee of Cabinet

- It is chaired by the **Prime Minister.**
- It decides all higher-level appointments in the Central Secretariat, Public Enterprises, Banks and Financial Institutions.

Why in News?

- The Appointments Committee of the Cabinet has extended the term of the Deputy Governor of RBI, Michael Debabrata Patra, by one year.

2) Fiscal Deficit Targets

About FRBM Act

- **Fiscal deficit** is the difference between **total expenditure and total receipts except borrowing and other liabilities.**
- The Fiscal Responsibility and Budget Management (FRBM) Act was enacted in 2003 which **set targets for the government to reduce fiscal deficits.** It was mandated that both states and the centre would cut the fiscal deficit to 3% by 2008-09. The targets were put off several times.

FRBM Review Committee

- In 2016, the government set up a committee under **NK Singh** to review the FRBM Act.
- The committee recommended that the central government should bring down the **fiscal deficit to 3% of the GDP by 2020, cut it to 2.8% in 2020-21 and 2.5% by 2023.**
- The committee also recommended that **states should keep their fiscal deficit under 3% of their respective gross state domestic product (GSDP).**
- It also allows an **escape clause** under the FRBM Act that provides for a deviation from the estimated fiscal deficit on some exception cases such as:
    - **Overriding considerations** of national security, acts of war, and calamities of national proportion and collapse of agriculture

    - severely affecting farm output and incomes;
    - **Far-reaching structural reforms** in the economy with unanticipated fiscal implications;
    - A **sharp decline in real output growth** of at least 3 percentage points below the average for the previous four quarters.
- The deviation from the stipulated fiscal deficit target **must not exceed 0.5 percentage points** in a year.
- Escape clauses provide flexibility to governments to overshoot fiscal deficit targets in times of need, enabling them to respond to economic shocks.
- It also suggested that India should **adopt a debt-to-GDP ratio as a new anchor of fiscal policy along with the fiscal deficit** and **gradually bring it down to 60 per cent — comprising 40 per cent for the Centre and 20 per cent for the states.**
- In 2020, as a part of the **Aatmanirbhar economic stimulus package,** the Central government allowed state governments to **hike their borrowing limits from 3% to 5% of Gross State Domestic Product (GSDP)** on fulfilling certain conditions.

Why in News?

- A report released by the State Bank of India has noted that India's fiscal deficit is expected to be at **6.4% of GDP in FY 23**, which is the target set by the Union Budget 2022-23.
- **India's debt ratio** is projected to be **84% of its GDP** by the end of 2022.

3) Anti-dumping duties

What is dumping?

- Dumping is the practice of **selling a product in a foreign market at an unfairly low price** (a price that is lower than the cost in the home market, or which is lower than the cost of production) in order **to gain a competitive advantage over other suppliers.**
- Dumping is done to gain access to the foreign market and eliminate competition. It creates a **monopoly** in the market.
- Dumping enables consumers in the importing country to obtain access to goods at an **affordable price.** However, it can also destroy the local market of the importing country, which can result in layoffs and the closure of businesses.

Anti-dumping duty

- An anti-dumping duty is a protectionist tariff that a **domestic government imposes on foreign imports** when it believes that the goods are being "dumped" – through the low pricing – in the domestic market.
- Anti-dumping duty is imposed **to protect local businesses and markets** from unfair competition by foreign imports.

Ill effects of such duties

- While the intention of anti-dumping duties is to save domestic jobs, these tariffs can also lead to **higher prices for domestic consumers.**
- In the long-term, anti-dumping duties can **reduce the international competition of domestic companies** producing similar goods.

Dumping and WTO

- The **World Trade Organization (WTO)** plays a critical role in the regulation of anti-dumping measures.

- The **WTO Anti-Dumping Agreement** allows the government of the affected country to take legal action against the dumping country as long as there is **evidence of genuine material injury to industries in the domestic market**.
- The government must show that dumping took place, the extent of the dumping in terms of costs, and the injury or threat to cause injury to the domestic market.
- In other cases, the WTO intervenes to prevent anti-dumping measures.

Why in News?

- **The Directorate General of Trade Remedies (DGTR)** under the **Ministry of Commerce** has recommended imposition of anti-dumping duty on vinyl tiles coming from China and Taiwan for five years to guard domestic players from cheap imports from these countries.
- The duty is aimed at ensuring fair trading practices and creating a level-playing field for domestic producers vis-a-vis foreign producers and exporters.

4) Finance Commission

About Finance Commission

- The Finance Commission is a **constitutional body** set up under **Article 280** of the Constitution.
- Under Article 280, the **President of India** is required to constitute a Finance Commission at an **interval of five years or earlier.**

What are the qualifications for Members?

- The Finance Commission has a chairman and four members appointed by the **President**.
- The **Chairman** of the Commission is selected from among persons who have had **experience in public affairs**, and the **four other members** are selected from among persons who--
    - are, or have been, or are qualified to be appointed as Judges of a High Court; or
    - have special knowledge of the finances and accounts of Government; or
    - have had wide experience in financial matters and in administration; or
    - have special knowledge of economics

What are the functions of the Finance Commission?

- It is the duty of the Commission to make recommendations to the President as to—
    - the **distribution of tax proceeds** between the Union and the States and the share of each state.
    - the **principles which should govern the grants-in-aid** of the revenues of the States out of the Consolidated Fund of India;
    - the **measures needed to augment the Consolidated Fund of a State** to supplement the resources of the Panchayats in the State on the basis of the recommendations made by the Finance Commission of the State;
    - the **measures needed to augment the Consolidated Fund of a State** to supplement the resources of the Municipalities in the State on the basis of the recommendations made by the Finance Commission of the State;

  - any other matter referred to the Commission by the **President** in the interests of sound finance.

Why in News?

- The government is set to start the process to set up the **Sixteenth Finance Commission,** tasked with recommending the revenue sharing formula between the Centre and States and their distribution among States.
- The Fifteenth Finance Commission (Chair: **Mr. N. K. Singh**) was set up in November 2017 with a mandate to make recommendations for the five-year period from 2020-21.
- While the Constitution requires a Finance Commission to be set up every five years, the 15th FC's mandate was **extended by a year till 2025-26**, breaking the cycle.
- In late 2019, the Commission was asked to give a standalone report for 2020-21 and another report for an extended five-year period till 2025-26.

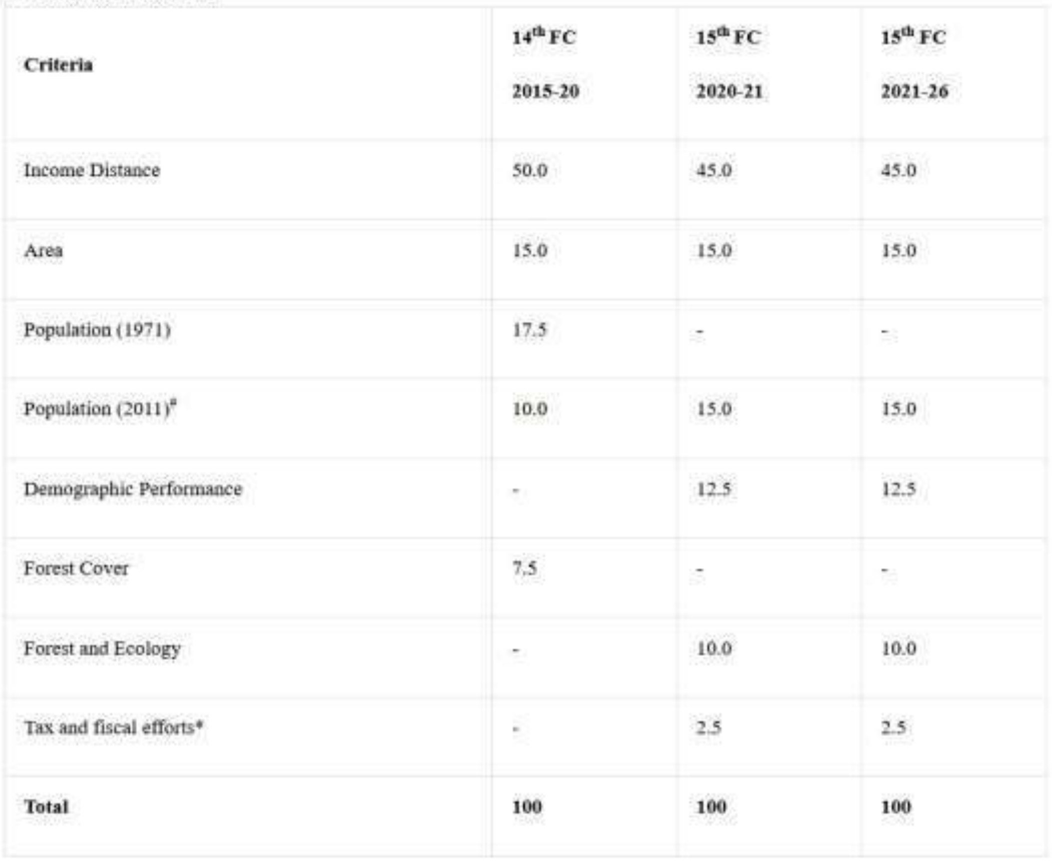
Key recommendations in the report for 2021-26 include:

Share of states in central taxes

- The share of states in the central taxes for the 2021-26 period is **recommended to be 41%,** same as that for 2020-21. This is less than the 42% share recommended by the 14th Finance Commission for 2015-20 period.
- The adjustment of 1% is to provide for the newly formed union territories of Jammu and Kashmir, and Ladakh from the resources of the centre.

Criteria for devolution

1 : Criteria for devolution



Criteria	14th FC 2015-20	15th FC 2020-21	15th FC 2021-26
Income Distance	50.0	45.0	45.0
Area	15.0	15.0	15.0
Population (1971)	17.5	-	-
Population (2011)#	10.0	15.0	15.0
Demographic Performance	-	12.5	12.5
Forest Cover	7.5	-	-
Forest and Ecology	-	10.0	10.0
Tax and fiscal efforts*	-	2.5	2.5
Total	**100**	**100**	**100**

- **Income distance:** It is the distance of a state's income from the state with the highest income. Income of a state has been computed as average per capita GSDP during the three-year period between 2016-17 and 2018-19. A state with lower per capita income will have a higher share to maintain equity among states.

- **Demographic performance:** The Commission used **2011 population data** for its recommendations. The demographic performance criterion has been used to **reward efforts made by states in controlling their population.** States with a lower fertility ratio will be scored higher on this criterion.
- **Forest and ecology:** This criterion has been arrived at by calculating the share of the dense forest of each state in the total dense forest of all the states.
- **Tax and fiscal efforts:** This criterion has been used to reward states with higher tax collection efficiency. It is measured as the ratio of the average per capita own tax revenue and the average per capita state GDP during the three years between 2016-17 and 2018-19.

Grants

- Over the 2021-26 period, the following grants will be provided from the centre's resources.
- **Revenue deficit grants:** 17 states will receive grants worth Rs 2.9 lakh crore to eliminate revenue deficit.
- **Sector-specific grants:** Sector-specific grants of Rs 1.3 lakh crore will be given to states for eight sectors: (i) health, (ii) school education, (iii) higher education, (iv) implementation of agricultural reforms, (v) maintenance of PMGSY roads, (vi) judiciary, (vii) statistics, and (viii) aspirational districts and blocks. A portion of these grants will be **performance-linked.**
- **State-specific grants:** The Commission recommended state-specific grants of Rs 49,599 crore. These will be given in the areas of: (i) social needs, (ii) administrative governance and infrastructure, (iii) water and sanitation, (iv) preservation of culture and historical monuments, (v) high-cost physical infrastructure, and (vi) tourism.
- **Grants to local bodies:** The total grants to local bodies will be Rs 4.36 lakh crore (a portion of grants to be performance-linked) including: (i) Rs 2.4 lakh crore for rural local bodies, (ii) Rs 1.2 lakh crore for urban local bodies, and (iii) Rs 70,051 crore for health grants through local governments.
- Grants to local bodies (other than health grants) will be distributed among states **based on population and area, with 90% and 10% weightage,** respectively.
- **Disaster risk management:** The Commission recommended retaining the existing cost-sharing patterns between the centre and states for disaster management funds. The cost-sharing pattern between centre and states is: (i) 90:10 for north-eastern and Himalayan states, and (ii) 75:25 for all other states.

Fiscal roadmap

- **Fiscal deficit and debt levels:** The Commission suggested that the centre bring down the fiscal deficit to **4% of GDP by 2025-26**. For states, it recommended the fiscal deficit limit (as % of GSDP) of: (i) 4% in 2021-22, (ii) 3.5% in 2022-23, and (iii) 3% during 2023-26.
- **Extra annual borrowing worth 0.5% of GSDP** will be allowed to states during first four years (2021-25) upon undertaking power sector reforms including: (i) reduction in operational losses, (ii) reduction in revenue gap, (iii) reduction in payment of cash subsidy by

adopting direct benefit transfer, and (iv) reduction in tariff subsidy as a percentage of revenue.

- The Commission observed that the recommended path for fiscal deficit for the centre and states will result in a **reduction of total liabilities of**: (i) the centre from 62.9% of GDP in 2020-21 to 56.6% in 2025-26, and (ii) the states on aggregate from 33.1% of GDP in 2020-21 to 32.5% by 2025-26.
- It recommended forming a **high-powered inter-governmental group to**: (i) review the Fiscal Responsibility and Budget Management Act (FRBM), (ii) recommend a new FRBM framework for centre as well as states, and oversee its implementation.
- **GST:** GST rate structure should be rationalised by **merging the rates of 12% and 18%.** States need to step up field efforts for expanding the GST base and for ensuring compliance.
- **Financial management practices:** A comprehensive framework for public financial management should be developed. An **independent Fiscal Council** should be established with powers to assess records from the centre as well as states. The Council will only have an **advisory role**.
- The centre as well as states **should not resort to off-budget financing or any other non-transparent means of financing** for any expenditure.
- States may form an **independent debt management cell** to manage their borrowing programmes efficiently.

Other recommendations

- **Health: Primary healthcare expenditure** should be **two-thirds of the total health expenditure. All India Medical and Health Service** should be established.
- **Funding of defence and internal security:** A dedicated non-lapsable fund called the **Modernisation Fund for Defence and Internal Security (MFDIS)** will be constituted to primarily bridge the gap between budgetary requirements and allocation for capital outlay in defence and internal security.

5) Petroleum and Natural Gas Regulatory Board

About PNGRB

- Petroleum and Natural Gas Regulatory Board (PNGRB) is a **statutory body** for the Petroleum and Natural Gas Sector constituted under the PNGRB Act, 2006.
- The objective of PNGRB is to **protect the interests of consumers and entities** engaged in specified activities relating to petroleum, petroleum products and natural gas and to **promote competitive markets.**
- The board has also been mandated to **regulate** the refining, processing, storage, transportation, distribution, marketing and sale of petroleum, petroleum products and natural gas excluding production of crude oil and natural gas so as to ensure uninterrupted and adequate supply of petroleum, petroleum products and natural gas in all parts of the country.
- The appeals against the decisions of the Board go before the **Appellate Tribunal** established under the **Electricity Act, 2003.**

Why in News?

- The Petroleum and Natural Gas Regulatory Board invited bids for development of Natural Gas Pipelines in Jammu & Kashmir.

Science and Technology

1) Dementia

Context

- Recent studies have forecasted substantial increases in the societal and economic burden of dementia in the coming decades.

What is Dementia?

- Dementia is a term used to describe a **group of symptoms affecting memory, thinking and social abilities** severely enough to interfere with your daily life.
- Dementia is a clinical syndrome **caused by a range of diseases or injuries to the brain.**

Extent of Dementia

- Worldwide, **47.5 million people have dementia.** Given the dramatic growth of the population of older people, the number of people living with dementia worldwide is **expected to double every 20 years,** going up to **135.5 million by 2050.**
- According to a 2020 report published by the **Alzheimer's and Related Disorders Society of India,** there are around **5 million people in India living with dementia.**

Common Cause

- The **most common cause** of dementia is **Alzheimer's disease**.
- It is implicated in **up to 70% of dementia diagnoses.**

Symptoms

- **Early symptoms** include absent-mindedness, difficulty recalling names and words, difficulty retaining new information, disorientation in unfamiliar surroundings, and reduced social engagement.
- **More atypical symptoms** include impairment in recognising visually presented objects (visual agnosia) despite a normal visual field, acuity and colour vision. Some might also experience word-finding difficulties (anomic aphasia).
- **As the disease progresses**, there is **marked memory loss and loss of other cognitive skills**, including a reduced vocabulary and less complex speech patterns.
- This may be accompanied by mood swings, apathy, a decline in social skills, and the emergence of psychotic phenomena.
- **Advanced disease** is characterised by monosyllabic speech, psychotic symptoms, behavioural disturbance, loss of bladder and bowel control, and reduced mobility.

Prevention

- The WHO has identified **preventing Alzheimer's disease** to be a key element in the strategy to fight the world's dementia epidemic.
- Prevention programmes usually focus on **lifestyle risk factors** – such as sedentary behaviour, unhealthy diet, smoking, and excessive alcohol use – together with **mental wellbeing and risk of cardiovascular diseases.**
- **Current smokers have a 50% higher risk** of developing dementia relative to those who have never smoked.
- **Regular exercise** helps offset cardiovascular, and in fact broader, health risks.
- In addition, there is a **robust link between depression in late life and the incidence of sporadic dementia.** Having depression increases the risk of developing dementia by nearly twofold.

- **Higher educational and occupational attainments** have consistently been implicated as **protecting against developing dementia later in life**. One recent study reported that those who attain higher education have a 40% lower risk.

2) IN-SPACe

About

- IN-SPACe is an **independent nodal agency under Department of Space (DOS)** for allowing space activities and usage of DOS owned facilities by Non-Government-Private-Entities (NGPEs).
- Formally inaugurated in 2022, it acts as the **promoter and regulator of space activities in India by NGPEs.**
- IN-SPACe has a Chairman, technical experts for space activities, Safety experts, experts from Academia and Industries, Legal and Strategic experts from other departments.

Roles and Responsibilities

- IN-SPACe is a **single window nodal agency**, with its own cadre, which will permit and oversee the following activities of NGPEs.
    a. **Space activities** including building of launch vehicles and satellites and providing space based services as per the definition of space activities.
    b. **Sharing of space infrastructure and premises** under the control of ISRO with due considerations to on-going activities.
    c. Establishment of temporary facilities within premises under ISRO control based on safety norms and feasibility assessment
    d. **Establishment of new space infrastructure and facilities**, by NGPEs, in pursuance of space activities based on safety norms and other statutory guidelines and necessary clearances.
    e. Initiation of launch campaign and launch, based on readiness of launch vehicle and spacecraft systems, ground and user segment.
    f. Building, operation and control of spacecraft for registration as Indian Satellite by NGPEs and all the associated infrastructure for the same.
    g. **Usage of spacecraft data and rolling out of space based services** and all the associated infrastructure for the same.

Why in News?

- Government of India informed that till date, 135 applications have been received by IN-SPACe from 135 NGPEs in the Space Sector.

3) Curiosity Rover

About

- **NASA's Curiosity rover** was launched aboard an **Atlas V rocket** from Cape Canaveral Air Force Station, Florida on Nov. 26, 2011, and landed on Aug. 5, 2012 after taking eight months and 10 days to reach the Red Planet.
- The rover is part of **NASA's Mars Science Laboratory mission** which tested a novel landing method that saw the **spacecraft descend on a parachute** before its landing system fired up its rockets and hovered as the rover was lowered down onto the surface.

- A similar entry and landing process was repeated in 2021 when the **Perseverance rover** *(Refer Pulse September At A Glance 2022 edition)* arrived on Mars.

Objectives

- Curiosity has four main science goals:
    - Determine whether life ever arose on Mars;
    - Characterize the climate of Mars;
    - Characterize the geology of Mars;
    - Prepare for human exploration.

Previous Findings

- During its decade exploring the Red Planet, Curiosity has journeyed from **Gale Crater to Aeolis Mons** (colloquially called **Mount Sharp**).
- During its travels, the rover has found **extensive evidence of past water and geological change as well as shifts in climate.**

Why in News?

- NASA's Curiosity Rover has discovered new evidence that an **ancient lake existed in a region of Mars**, which was earlier believed to be drier.
- Since 2014, the Curiosity rover has been ascending the foothills of **Mount Sharp**, a 5-kilometer-tall mountain that was once laced with lakes and streams that would have provided a rich environment for microbial life, if any ever formed on the Red Planet.
- The findings during the exploring of a region known as the **'Marker Band'** revealed **evidence of ancient water ripples that formed within lakes.**
- The Curiosity mission's findings demonstrate that Mars used to be much wetter than previously believed, and future investigation is likely to yield much more fascinating findings about the planet's past.

4) Lymphatic filariasis

About

- Lymphatic filariasis, commonly known as **elephantiasis**, is a **neglected tropical disease** *(Refer Pulse November At A Glance 2022 edition)*.
- It is a **parasitic disease** caused by microscopic, thread-like **worms**. The adult worms only live in the human lymph system. The lymph system maintains the body's fluid balance and fights infections.
- Lymphatic filariasis is **spread from person to person by mosquitoes.**
- People with the disease can suffer from lymphedema and elephantiasis and in men, swelling of the scrotum, called hydrocele.
- Lymphatic filariasis is a leading cause of permanent disability worldwide.
- These patients are not only physically disabled, but suffer mental, social and financial losses contributing to stigma and poverty.
- Lymphatic filariasis can be eliminated by stopping the spread of infection through **preventive chemotherapy** with safe medicine combinations repeated annually.

Why in News?

- The Ministry of Health and Family Welfare conducted a National Symposium on India's Roadmap to Eliminate Lymphatic Filariasis in New Delhi.
- India is committed to **eliminating Lymphatic Filariasis by 2027**, three years ahead of the global target.

5) Deep Ocean Mission

What is it?

- It is an initiative spearheaded by the **Ministry of Earth Sciences (MoES)** in collaboration with ISRO, DRDO, Department of Atomic Energy (DAE), Council of Scientific and Industrial Research (CSIR), Department of Biotechnology (DBT) and the Indian Navy.
- The Indian government wants to understand the oceans better, both as a resource and for the conservation of marine biodiversity.
- One of the main aspects of the mission will be **design, development and demonstration of human submersibles** (in the image below).

- Another aspect is **exploring the possibility of deep sea mining and developing necessary technologies.**
- Under the mission, studies are planned at depths close to 6,000 metres under six major components —
  1. Mineral exploration on the sea-bed;
  2. Study and mapping of biodiversity;
  3. Study of climate change;
  4. Exploration of marine biology and developing allied courses,
  5. Training; development and demonstration of ocean exploration
  6. Off-shore technologies for future.

Significance of the mission

- The mission forms a part of the **Blue Economy** envisioned to be developed by 2030, which will place India among select countries — US, France, Japan, Russia and China — to have special missions dedicated for ocean studies.
- It is a **strategic and geo-political move** in order to further strengthen India's position in the Indian Ocean region.
- Globally, **only 11 percent of marine species have been identified.** The deep ocean species are even less explored. Hence it will be helpful in identifying the species and knowing more about **climate change.**

Economic Potential

- It will enable India to develop capabilities to **exploit resources in the Central Indian Ocean Basin (CIOB).**
- CIOB reserves contain deposits of metals like iron, manganese, nickel and cobalt. It is envisaged that **10% of recovery of that large reserve can meet the energy requirement of India for the next 100 years.**
- India has also been allotted 75,000 square kilometres in the CIOB by the **UN International Sea Bed Authority (ISA)** for exploration of **poly-metallic nodules**.
  - *The ISA is an institution set up under the* ***UN Convention on Law of the Sea*** *to which* ***India is a Party.***
  - *Polymetallic nodules are rounded accretions of* ***manganese and iron***

__hydroxides__ that cover vast areas of the seafloor, but are most abundant on abyssal plains at water depths of 4000-6500 metres. They form through the aggregation of layers of iron and manganese hydroxides around a central particle (such as a shell or small rock fragment), and range in size from a few millimeters to tens of centimeters.

  - *Growth of these nodules is extremely slow, at a rate of millimetres per million years, and they remain on the seafloor surface, often partially buried in a thin layer of sediment.*
  - *The composition of nodules varies with their environment of formation, but in addition to manganese and iron, they can contain __nickel, copper and cobalt__ in commercially attractive concentrations as well as traces of other valuable metals such as __molybdenum, zirconium and Rare Earth Elements.__ They are viewed as potential resources to take care of the depleting land resources and increasing demand of these metals.*

Why in News?

- Under the Deep Ocean Mission, a manned scientific submersible known as the **'MATSYA 6000'** is being designed and developed by **National Institute of Ocean Technology (NIOT),** an autonomous Institute under the Ministry of Earth Sciences. The project is named as **Samudrayaan**.
- The Samudrayaan mission is aimed at **sending three personnel to 6000-metre depth** in the 'MATSYA 6000' for the exploration of deep sea resources like minerals.

6) International Space Station

About ISS

- The International Space Station is the **largest single structure humans ever put into space**.
- The ISS is in a **Low Earth Orbit (LEO)** about 400 km to 420 km above Earth's surface.
- Its main construction was completed between 1998 and 2011, although the station continually evolved to include new missions and experiments.
- The ISS includes contributions from 15 nations. **NASA** (United States), **Roscosmos** (Russia) and the **European Space Agency** are the major partners of the space station who contribute most of the funding; the other partners are the **Japanese Aerospace Exploration Agency** and the **Canadian Space Agency.**
- The ISS serves as a microgravity and space environment research laboratory in which crew members conduct experiments in biology, human biology, physics, astronomy, meteorology, and other fields.
- The station is divided into **two sections**, the **Russian Orbital Segment (ROS),** which is operated by Russia, and the **United States Orbital Segment (USOS),** which is shared by many nations.
- Several landmark firsts were recorded onboard the ISS in the last two decades. For instance, in 2018, NASA's Cold Atom Lab became the first facility to produce the **fifth state of matter,** called a **Bose-Einstein condensate**, in space. In 2016, a NASA astronaut was able to

sequence DNA in space for the first time.

Why in News?

- Russia is set to launch a rescue vessel to the International Space Station to bring home three crew members who are in effect stuck in orbit after their original capsule was hit by a meteoroid.
- The Russian space agency, Roscosmos said that the strike caused no immediate threat to the crew of the space station.

7) Quantum Computing

About

- Quantum computing harnesses the **phenomena of quantum mechanics** to deliver a huge leap forward in computation to solve certain problems.
- One of the basic elements that make up this quantum computer is that where the classical one uses **bits** to compute this one uses “**qubits**”.
- Classical bits can take the value 0 or 1, allowing for a binary system to be set up and the lowest level of computer language is done manipulating these bits. A qubit on the other hand can exist as a **superposition of two states 0 and 1** (a state known as **quantum superposition**). So if one has an n-qubit number, it can exist as a superposition of 2n states. This also allows for an **immense amount of parallel processing.**

Uses of Quantum Computing

- **Artificial Intelligence & Machine Learning**: As the number of applications increases, it becomes a challenging task for traditional computers, to match up the accuracy and speed. And, that’s where quantum computing can help in processing through complex problems in very less time.
- **Computational Chemistr**y: The ability for quantum computers to focus on the existence of both 1 and 0 simultaneously could provide immense power to the machine to successfully map the molecules which, in turn, potentially opens opportunities for pharmaceutical research.
- **Cybersecurity & Cryptography**: Quantum computing with the help of machine learning can help in developing various techniques to combat these cybersecurity threats. Additionally, quantum computing can help in creating encryption methods, also known as quantum cryptography.
- **Financial Modelling:** By applying quantum technology to perform these massive and complex calculations, companies can not only improve the quality of the solutions but also reduce the time to develop them.
- **Weather Forecasting**: Application of quantum machine learning can help in improving pattern recognition, which, in turn, will make it easier for scientists to predict extreme weather events and potentially save thousands of lives a year. With quantum computers, meteorologists will also be able to generate and analyse more detailed climate models, which will provide greater insight into climate change and ways to mitigate it.

Why in News?

- The Government of India inaugurated a two-day Symposium on the Quantum Computing Ecosystem.
- The symposium aims to project India’s capabilities in Quantum Computing. It aims to explore the technologies, systems and subsystems which make up the

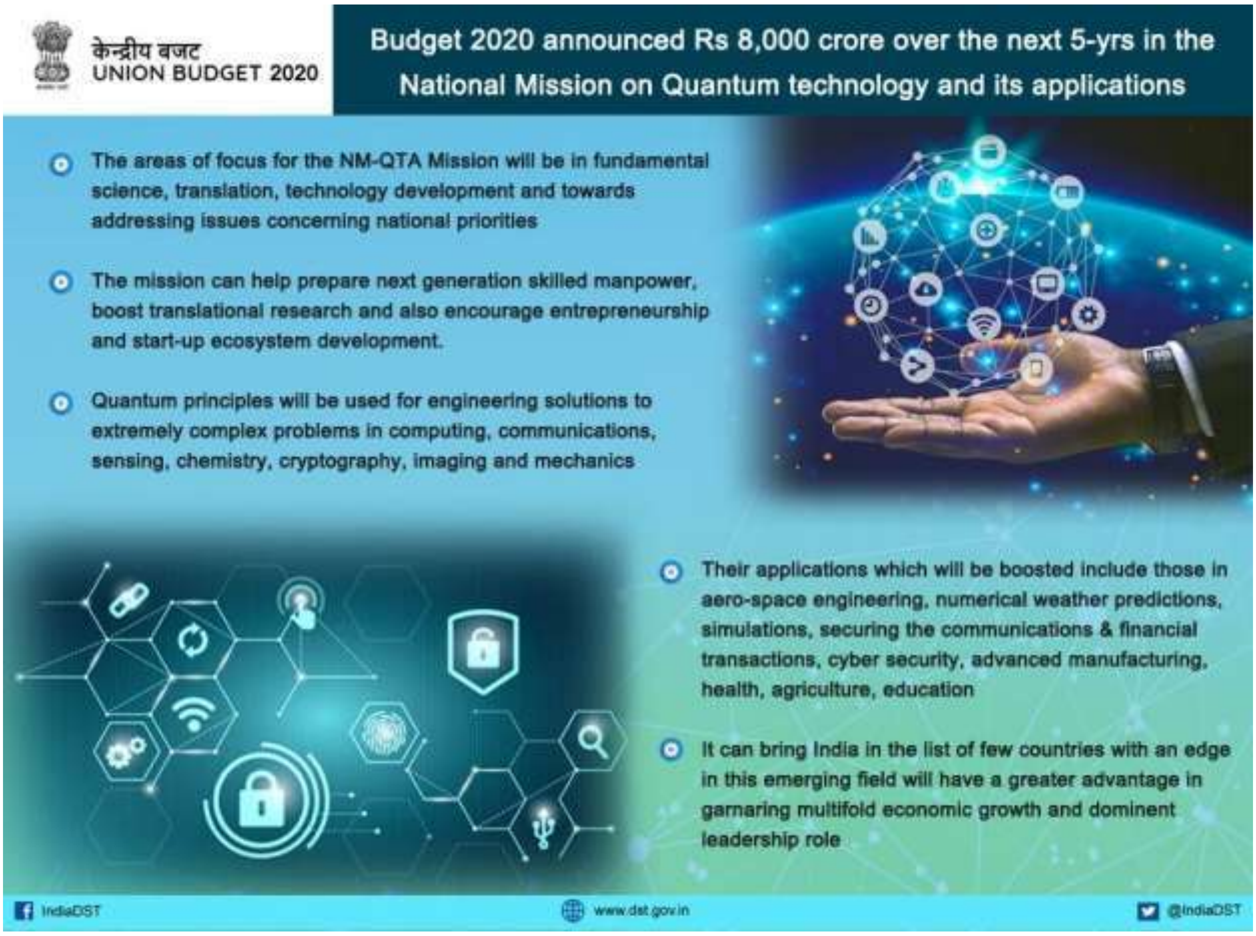
building blocks of quantum computers and bring about a synergy among key stakeholders to build a commercial scale Quantum Computer.

Related Technical Terms

- **Quantum Entanglement**: The existence of two members of a pair (Qubits) in a single quantum state is referred to as entanglement. Changing the state of one of the qubits will instantly and predictably impact the state of the other. This occurs even when they are separated by great distances.
- **Quantum Superposition:** It refers to a quantum system's ability to be in several states at the same time.
- **Quantum Interference**: Quantum interference asserts that elementary particles can not only be in more than one place at the same time (by superposition), but that an individual particle, such as a photon (light particle), can cross its own trajectory and interfere with its own path's direction.

Government Efforts

National Mission on Quantum Technologies & Applications (NM-QTA)



केन्द्रीय बजट
UNION BUDGET 2020

Budget 2020 announced Rs 8,000 crore over the next 5-yrs in the National Mission on Quantum technology and its applications

- The areas of focus for the NM-QTA Mission will be in fundamental science, translation, technology development and towards addressing issues concerning national priorities
- The mission can help prepare next generation skilled manpower, boost translational research and also encourage entrepreneurship and start-up ecosystem development.
- Quantum principles will be used for engineering solutions to extremely complex problems in computing, communications, sensing, chemistry, cryptography, imaging and mechanics
- Their applications which will be boosted include those in aero-space engineering, numerical weather predictions, simulations, securing the communications & financial transactions, cyber security, advanced manufacturing, health, agriculture, education
- It can bring India in the list of few countries with an edge in this emerging field will have a greater advantage in garnaring multifold economic growth and dominent leadership role

IndiaDST www.dst.gov.in @IndiaDST

- The Union Budget 2020-21 announced the **National Mission on Quantum Technologies & Applications (NM-QTA)** which will be able address the ever increasing technological requirements of the society, and take into account the international technology trends and road maps of leading countries for development of next generation technologies.
- Implementation of the mission would help **develop and bring quantum computers, secured**

communications through fibre and free space, quantum encryption and crypt-analysis and associated technologies within reach in the country and help address India specific national and regional issues.

- The mission will help **prepare next generation skilled manpower, boost translational research and also encourage entrepreneurship and start-up ecosystem development**. By promoting advanced research in quantum science and technology, technology development and higher education in science, technology and engineering disciplines India can be brought at par with other advanced countries and can derive several direct and indirect benefits.

Reports and Indices

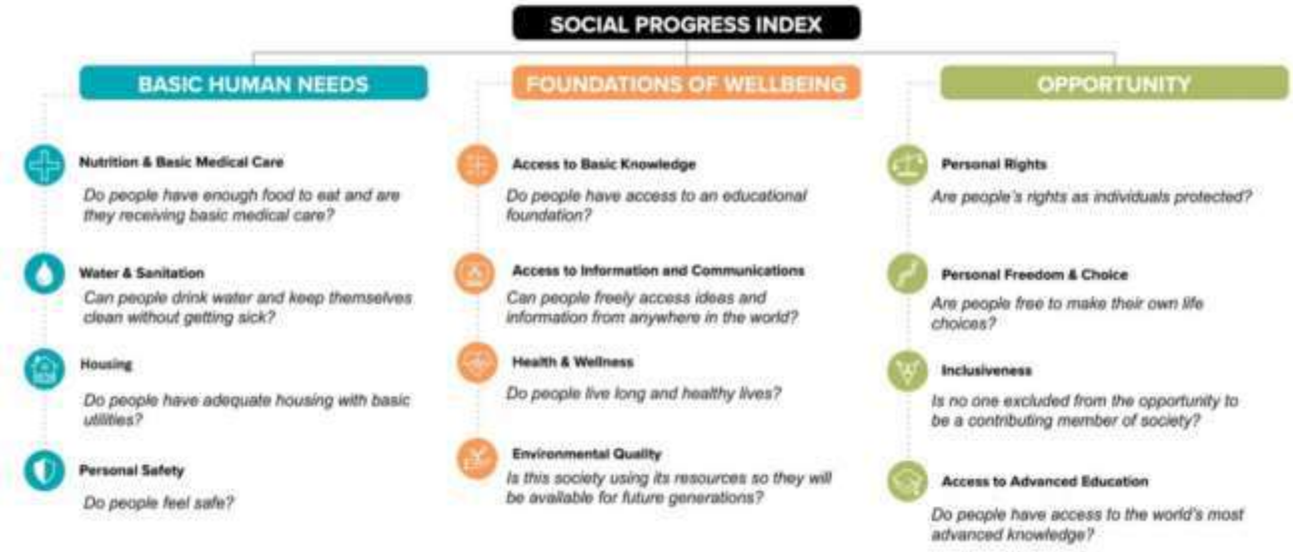
1) Social Progress Index (SPI)

What's in the news?

- The **Economic Advisory Council to Prime Minister (EAC-PM)** released the **Social Progress Index (SPI),** a ranking of states and districts measuring the social progress made by them which will aid policy makers in decision making.
- The report has been prepared by the **Institute for Competitiveness** and the **Social Progress Imperative** and was **mandated by the Economic Advisory Council to the Prime Minister of India.**
    - *Institute for Competitiveness is an international initiative centered in India, dedicated to enlarging and purposeful disseminating of the body of research and knowledge on competition and strategy.*
    - *The Social Progress Imperative is a US-based nonprofit created in 2012 best known for the Social Progress Index, a multi-indicator index that assesses the social and environmental performance of different countries.*

About the Index

- SPI is a comprehensive tool intended to be a **holistic measure of the Social Progress** made by the country at the **national and sub-national levels.**
- Understanding that the social progress of citizens is key to sustaining economic growth in the long run, the index complements the conventional measures of economic growth and development.
- SPI assesses the performance of states and districts on **three dimensions of social progress**:
    - **Basic Human Needs,**
    - **Foundations of well-being, and**
    - **Opportunity.**


SOCIAL PROGRESS INDEX
BASIC HUMAN NEEDS
FOUNDATIONS OF WELLBEING
OPPORTUNITY
Nutrition & Basic Medical Care
Do people have enough food to eat and are they receiving basic medical care?
Water & Sanitation
Can people drink water and keep themselves clean without getting sick?
Housing
Do people have adequate housing with basic utilities?
Personal Safety
Do people feel safe?
Access to Basic Knowledge
Do people have access to an educational foundation?
Access to Information and Communications
Can people freely access ideas and information from anywhere in the world?
Health & Wellness
Do people live long and healthy lives?
Environmental Quality
Is this society using its resources so they will be available for future generations?
Personal Rights
Are people's rights as individuals protected?
Personal Freedom & Choice
Are people free to make their own life choices?
Inclusiveness
Is no one excluded from the opportunity to be a contributing member of society?
Access to Advanced Education
Do people have access to the world's most advanced knowledge?

- Within each dimension, there are four components.
- The **dimension of Basic Human Needs** assesses the performance of states and districts in terms of Nutrition and Basic Medical Care, Water and Sanitation, Personal Safety and Shelter.
- The **dimension of Foundations of Wellbeing** evaluates the progress

made by the country across the components of Access to Basic Knowledge, Access to Information and Communication, Health and Wellness, and Environmental Quality.

- The **dimension of Opportunity** focuses on aspects of Personal Rights, Personal Freedom and Choice, Inclusiveness, and Access to Advanced Education.

Highlights of the Index

- **Puducherry** has bagged the top slot with the highest score of **65.9** in the country for its remarkable performance across the index's components like personal freedom and choice, shelter, and water and sanitation.
- **Lakshadweep and Goa** closely follow it with scores of 65.8 and 65.5, respectively. **Assam, Bihar and Jharkhand** have scored the lowest, securing 44.9, 44.4, 43.9 respectively out of 100.
- The report also highlights that **Aizawl** (Mizoram), **Solan** (Himachal Pradesh) and **Shimla** (Himachal Pradesh) have emerged as the top three best-performing districts.
- Based on the SPI scores, states and districts have been **ranked under six tiers of social progress** ranging from very high to very low progress.
- The index also focuses on the progress in aspirational districts and it comes through that **only 27 out of 112 districts under the Aspirational District Programme (ADP) have scored above the national average** on the Index.
- The report also dwells on India's performance based on the **global SPI** that is brought out by **Social Progress Imperative** since 2013. In the latest report released in September 2022, **India has been ranked 110th** on the index, scoring **60.2/100,** and finds itself in the **fourth tier of performance.** India's aggregate SPI score of 60.2 in 2022 is slightly lower than the world average of 65.2. The index covers 169 nations.

Related Information

EAC-PM

- Economic Advisory Council to the Prime Minister (EAC-PM) is a **non-constitutional, non-permanent and independent body** constituted to give advice on economic and related issues to the Government of India, specifically to the Prime Minister.
- The Terms of Reference of EAC-PM include analyzing any issue, economic or otherwise, referred to it by the Prime Minister and advising him thereon, addressing issues of macroeconomic importance and presenting views thereon to the Prime Minister.
- These could be either **suo-motu or on reference** from the Prime Minister or anyone else.
- The chairman is appointed from time to time when the body is constituted.

2) AISHE Report

What's in the news?

- The **Ministry of Education** has released the All India Survey on Higher Education (AISHE) 2020-2021.

About the Report

- The Ministry has been conducting All India Survey on Higher Education (AISHE) since 2011, **covering all higher educational institutions located in Indian Territory and imparting higher education** in the country.
- The survey collects detailed information on **different parameters such as student**

enrollment, teacher's data, infrastructural information, financial information etc.

Key Highlights of the survey

- The **total enrollment in higher education** has **increased to nearly 4.14 crore** in 2020-21 from 3.85 crore in 2019-20.
- The **Female enrolment** has increased to 2.01 crore from 1.88 crore in 2019-20.
- The **percentage of female enrolment to total enrolment** has increased from 45% in 2014-15 to **around 49%** in 2020-21.
- **Uttar Pradesh, Maharashtra, Tamil Nadu, Madhya Pradesh, Karnataka and Rajasthan** are the top 6 States in terms of number of students enrolled.
- **Government Universities** (59% of total) contribute towards 73.1% of the enrolment. **Government Colleges** (21.4% of total) contribute towards 34.5% of the enrolment.
- The **College Density**, the number of colleges per lakh eligible population (population in the age-group 18-23 years) has been **31.** This was 27 in 2014-15.
- States with Highest college density: Karnataka (62), Telangana (53), Kerala (50), Himachal Pradesh (50), Andhra Pradesh (49), Uttarakhand (40), Rajasthan (40), Tamilnadu (40).

Polity

1) Criteria for scheduling of tribes

Who are Scheduled Tribes?

- The framers of the Constitution took note of the fact that **certain communities** in the country were suffering from **extreme social, educational and economic backwardness** on account of the primitive agricultural practices, lack of infrastructure facilities and geographical isolation.
- The Constitution of India in **Article 366 (25)** prescribes that the Scheduled Tribes means such tribes or tribal communities as are deemed under **Article 342** of the Constitution to be Scheduled Tribes. In this regard, Article 342 lays out the process to define Scheduled Tribes.
- Essentially, the **President** is the **sole authority to notify tribal communities** as Scheduled Tribes as per the Constitution of India, with the **Governor playing a recommendatory role.**
- The **Parliament** is the sole authority to **pass amendments to the Constitution to modify the lists.** Additionally, the **state governments play an advisory role**, wherein the process to include tribes in the ST list starts with the recommendation of the respective State governments, which are then sent to the Tribal Affairs Ministry, which reviews and sends them to the **Registrar General of India** for approval.
- The **National Commission for Scheduled Tribes** also monitors and approves the lists before it is sent to the Cabinet for a final go ahead.

Criteria for specification of a community as a Scheduled Tribe

- The **Constitution is silent** about the criteria for specification of a community as a Scheduled Tribe.
- An Advisory Committee on Revision of lists of SCs & STs (**Lokur Committee**), setup in 1965, recommended the following essential characteristics for a community to be identified as a Scheduled Tribe.
  - **Primitive way of life and habitation in remote and less easily accessible areas,**
  - **Distinctive culture,**
  - **Shyness of contact with the community at large,**
  - **Geographical isolation, and**
  - **General backwardness in all respects.**

How many Scheduled Tribes have been identified so far?

- **Article 342(1)** mandates to specify the tribes or tribal communities or part of or groups within tribes or tribal communities as Scheduled Tribe in relation to that State or Union Territory as the case may be.
- There are **over 700 tribes** (with overlapping communities in more than one State) which have been notified under Article 342 of the Constitution of India, spread over different States and Union Territories of the country.
- The **list of Scheduled Tribes is State/UT specific** and a community declared as a Scheduled Tribe in a State need not be so in another State.
- The **largest number of main tribal communities (62)** has been

specified in relation to the **State of Orissa**.

- The Scheduled Tribes have been **specified in relation to all the States and Union Territories except Haryana, Punjab, Chandigarh, Delhi, and Pondicherry.**

What benefits accrue from being recognised as STs?

- The **fifth and sixth schedules** of the Constitution provide for **greater autonomy to tribal communities** in the administration of Scheduled areas and Tribal areas. The **fifth schedule** provides for the **Tribes Advisory Council**, which comprises 3/4th of its members from the STs, while the **sixth schedule** enlists provisions for **autonomous district and regional councils.** This is done to ensure that the tribal communities can preserve their unique culture.
- Additionally, the government has formulated **multiple welfare schemes** for the benefit and upliftment of ST communities, ranging from post-matric scholarship, overseas scholarship and the national fellowship, besides education, to concessional loans from the National Scheduled Tribes Finance and Development Corporation, and hostels for students.
- Furthermore, inclusion in ST lists also entitles tribal communities for the benefits of **reservations in jobs and educational institutions** as per government policies.

Why in News?

- In response to a query under the Right to Information Act, 2005, the Office of the Registrar-General of India (RGI) said that it is following the set of criteria set out by the **Lokur Committee** nearly 60 years ago to define any new community as a Scheduled Tribe.
    - *The office of Registrar General and Census Commissioner of India was founded in 1961 by the **Ministry of Home Affairs** for arranging, conducting and analysing the results of the demographic surveys of India, including census and linguistic survey.*
- The Office of the RGI's nod is **mandatory for the inclusion of any community in ST lists,** as per the procedure for scheduling tribes.
- The government task force on Scheduling of Tribes constituted in 2014, had concluded that these criteria **may have become obsolete** considering the process of transition and acculturation.

International Relations

1) Chagos Islands Dispute

What is the Chagos Islands dispute about?

- Chagos Islands is a **disputed territory between Mauritius and the United Kingdom.**
- **Mauritius** has argued that the Chagos Islands has been a part of its territory since at least the 18th century, till the United Kingdom broke the archipelago away from Mauritius in 1965 to form the **British Indian Ocean Territory.**
- After Mauritius gained independence from the UK in 1968, the United Kingdom refused to return the Chagos Islands to Mauritius claiming that the island was required to use certain islands in the Indian Ocean for **defence purposes.**
- The largest island on the Chagos Islands archipelago, **Diego Garcia**, is where **the US and the UK operate a large military base.**
- In 2019, the **International Court of Justice** *(Refer Pulse July At A Glance 2022 edition)* ruled that **Britain should give up control of the islands.**
- In the same year, the **UN General Assembly** adopted a resolution recognising that **"the Chagos Archipelago forms an integral part of the territory of Mauritius"** and urged UN agencies **"to support the decolonisation of Mauritius".**

Why in News?

- Britain and Mauritius have begun talks aimed at ending a decades-old spat over the legal status of the Chagos Islands, whose population was forcibly cleared in the late 1960s to allow the building of a joint UK-US military installation.
- Mauritius lays full claim to the remote Indian Ocean archipelago, **currently administered by Britain**, which has a joint military base there with the United States.

2) Israel-Palestine Conflict

Background

- **Britain** took control of the area known as **Palestine** after the ruler of that part of the Middle East, the **Ottoman Empire**, was defeated in **World War 1.** The land was inhabited by a **Jewish minority and Arab majority.**
- Tensions between the two peoples grew when the international community gave **Britain the task of establishing a "national home" in Palestine for Jewish people.** For Jews, it was their ancestral home, but Palestinian Arabs also claimed the land and opposed the move.
- Between the 1920s and 40s, the number of Jews arriving there grew, with many fleeing from persecution in Europe and seeking a homeland after the **Holocaust of**

WWII. Violence between Jews and Arabs, and against British rule, also grew.

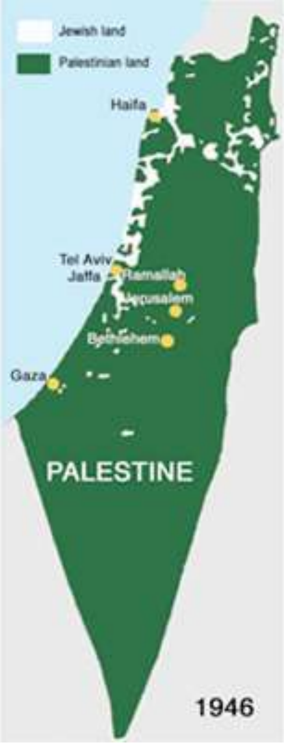
- In **1947**, the **UN voted for Palestine to be split into separate Jewish and Arab states, with Jerusalem becoming an international city.**
- That plan was accepted by Jewish leaders but rejected by the Arab side and never implemented.

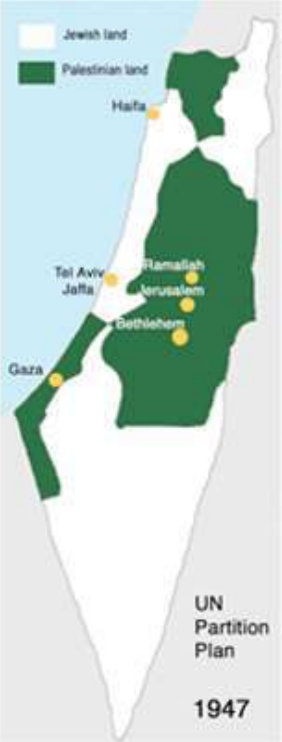
Major Issues

- **Jerusalem** lies in the heart of the Israel-Palestine conflict. The tussle is over who gets to control the ancient city that is **sacred to Jews, Muslims and Christians.**
- After the end of the **First Arab-Israel War in 1948,** Jerusalem was partitioned into West and East, under Israeli and Palestinian control respectively.
- But in 1967, during the **Six-Day Arab-Israel War**, Israel occupied East Jerusalem from Jordanian forces, and Israel's Parliament declared the territory had been annexed to Israel.
- This marginalised the Palestinians, who wanted East Jerusalem to be their capital under the **"two-state solution".**
- Most Palestinians, at present, live in **Gaza and the West Bank**, as well as in **neighbouring Jordan, Syria and Lebanon.**

What is the Two-State Solution?

- Its basis is two separate states, Israel and Palestine, living peacefully side by side on the land between the western bank of the Jordan river and the Mediterranean Sea.
- This territory would be divided broadly along the **pre-1967 armistice line or "green line". Jerusalem**, which both sides want as their capital, would be shared.
- Past negotiations have failed to make progress and there are currently no fresh talks in prospect.


Jewish land
Palestinian land
Haifa
Tel Aviv
Jaffa
Ramallah
Jerusalem
Bethlehem
Gaza
PALESTINE
1946


Jewish land
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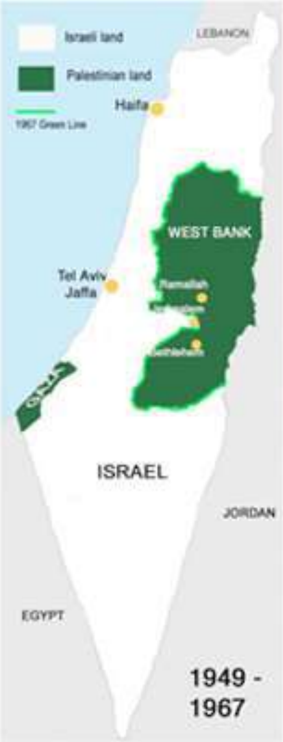
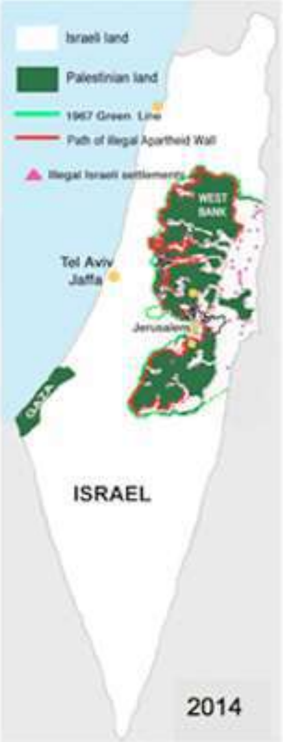
UN
Partition
Plan
1947


Israeli land
Palestinian land
1967 Green Line
LEBANON
Haifa
WEST BANK
Tel Aviv
Jaffa
Ramallah
Jerusalem
Bethlehem
GAZA
ISRAEL
JORDAN
EGYPT
1949 -
1967


Israeli land
Palestinian land
1967 Green Line
Path of Illegal Apartheid Wall
Illegal Israeli settlements
WEST BANK
Tel Aviv
Jaffa
Jerusalem
GAZA
ISRAEL
2014

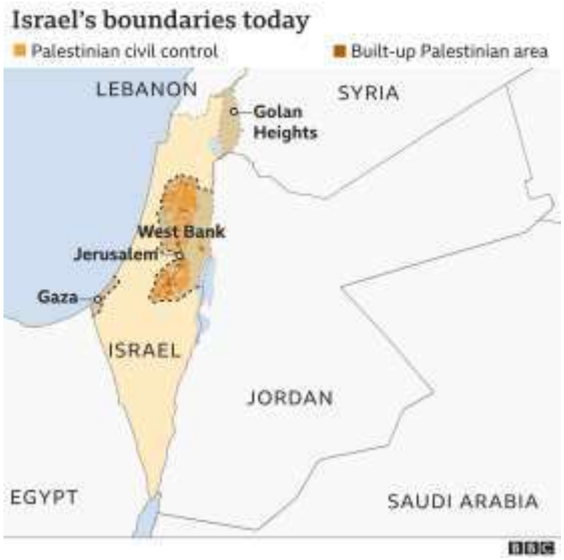
Oslo Accords & India's position

- Despite Israel's hold over Jerusalem, in 2016, the UN reaffirmed that Jerusalem's Palestinian territories were under "hostile occupation".
- Undeterred by the refusal of the international community to endorse the annexation, Israel further expanded settlements in the territories of East Jerusalem.
- Under the **Oslo Accords** of the 1990s, both Israel and the Palestinians agreed that the status of settlements would be decided by negotiations. But the negotiations process has been stalled for several years now.
- **India has traditionally backed a two-state solution** to resolve the Israel-Palestine conflict.

Why in News?

- The foreign ministers of France, Germany, Italy, United States and the United Kingdom condemned the Israeli government's decision to push ahead with the construction of thousands of settlement units in the occupied **West Bank.**
- More than half a million Israelis live in more than 200 settlements built on Palestinian land considered illegal under international laws. Palestinians say the settlement expansion threatens the viability of the future Palestinian state as part of the two-state solution.

What is the West Bank?


Israel's boundaries today
🟧 Palestinian civil control
🟫 Built-up Palestinian area
LEBANON
SYRIA
Golan Heights
West Bank
Jerusalem
Gaza
ISRAEL
JORDAN
EGYPT
SAUDI ARABIA
BBC

- It is a chunk of land located on the west bank of the **River Jordan** and bounded by Israel to the north, west and south. To its east lies **Jordan**.
- Since the Six-Day War in 1967, the West Bank has been **occupied by Israel**. Both Israelis and Palestinians assert their rights to the territory of the West Bank and its disputed status and the conflict has not been resolved as yet.
- Palestinians have sought the entire territory of the West Bank and the **Gaza strip** *(a self-governing Palestinian territory on the eastern coast of the Mediterranean Sea)* for an independent Palestinian state in the future, to which they claim historical rights.
- The vast majority of the international community considers the settlements **illegal under international law**, though Israel disputes this interpretation.

Latest Developments

Abraham Accords

- The Abraham Accords is a **collaboration between Israel, the United Arab Emirates and Bahrain, mediated by the USA.**
- It was signed in 2020 to normalize diplomatic relations among Israel, UAE and Bahrain.

- The accords were the first deal any Arab country had signed with Israel in 26 years. Until that day, the countries did not have any official economic or personal relationship with Israel.

3) CPTPP

About CPTPP

- The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) is a **free trade agreement (FTA) between 11 countries around the Pacific Rim: Canada, Mexico, Peru, Chile, New Zealand, Australia, Brunei, Singapore, Malaysia, Vietnam and Japan.**
- The CPTPP was launched to **remove trade barriers** among these 11 nations representing nearly 500 million consumers in the Asia-Pacific region in a bid to counter China's growing economic influence.
- The eleven signatories have combined economies representing 13.4 percent of global GDP, making the CPTPP one of the world's largest free-trade areas.

CANADA
JAPAN
VIETNAM
MALAYSIA
BRUNEI DARUSSALAM
SINGAPORE
MEXICO
PERU
AUSTRALIA
CHILE
NEW ZEALAND
NEW ZEALAND

When was the CPTPP negotiated?

- Negotiations for what was then simply the **Trans-Pacific Partnership (TPP)** began in 2010 and concluded in 2015.
- **The US** was party to those talks, but it **withdrew from the agreement** before ratification.
- The remaining 11 participants scrambled to amend the text of the agreement, and the newly renamed Comprehensive and Progressive Agreement for Trans-Pacific Partnership was signed in **2018**.

Why in News?

- The UK is holding discussions with CPTPP members to join the trade bloc.
- The UK submitted a formal application to join CPTPP in 2020

4) Davos Summit

About World Economic Forum

- Established in 1971 by the German economist Klaus Schwab, WEF is an **international non-governmental lobbying organisation** based in **Geneva, Switzerland.**
- The foundation is mostly **funded by its 1,000 member companies** - typically global enterprises with more than $5 billion in turnover – as well as **public subsidies.**
- Its mission is improving the state of the world by engaging business, political, academic, and other leaders of society to shape global, regional, and industry agendas.

About Davos Summit

- Davos, Switzerland, is where the World Economic Forum holds its annual meeting.
- Delegates from many sectors converge for several days of talks and meetings to address urgent global issues.
- Its salience goes far beyond discussions on economic issues. In the past, it has been used as a location for **pivotal international diplomacy.**

Why in News?

- The World Economic Forum's Annual Meeting 2023 was held in the Swiss town of Davos.

- The theme this year was **'Cooperation in a Fragmented World'.** This year, Davos hosted 52 heads of state and government and nearly 600 CEOs.

Defence

1) Beating Retreat Ceremony

What's in the news?

- Beating the Retreat ceremony, marking the culmination of four-day-long Republic Day celebrations, was held at the historic Vijay Chowk in New Delhi.

How is the Beating Retreat in India conducted?

- Historically, Beating Retreat is a centuries-old military tradition going back to the days when troops disengaged from battle at sunset.
- In India, the ceremony traces its origin to the early 1950s when **Major Roberts** of the Indian Army indigenously developed the unique ceremony of display by the massed bands.
- The ceremony is conducted every year on **January 29** at **Vijay Chowk** to mark the **formal conclusion of the Republic Day celebrations.**
- The occasion is organised and held by the **Indian Army** which is graced by the **President of India** as the **Supreme Commander** of the armed forces.
- Military Bands, Pipes and Drums Bands, Buglers and Trumpeters from various Army Regiments perform during the ceremony. Besides, there are bands from each of the Navy and Air Force. Most of the tunes being played by the Army's Military Bands are based on Indian tunes.
- It is marked by the lowering of flags at dusk. A series of lights illuminate the outlines of the Rashtrapati Bhavan, North Block, South Block and Parliament House.

2) INS Arihant

About INS Arihant

- Launched in 2009 and Commissioned in 2016, INS Arihant is **India's first indigenous nuclear powered ballistic missile capable submarine** built under the **secretive Advanced Technology Vessel (ATV) project**, which was initiated in the 1990s.
- INS Arihant is a 6,000-tonne submarine with a length of 110 metres and a breadth of 11 metres. The vessel carries multiple **K 15 submarine launched ballistic missiles** that have a range of over 700 km.
- INS Arihant and its class of submarines are classified as **Strategic Strike Nuclear Submarines (SSBNs).** They are **different from conventional SSK submarines**, which use a **diesel-electric engine** as their power source, and have to **surface daily to get oxygen for fuel combustion.**
- SSBNs are **bigger in size** and are **powered by a nuclear reactor** and as a result, they can **function submerged for months without having to surface.**
- This feature allows them to **travel further and with greater stealth.**

Why in News?

- The indigenous ballistic missile nuclear submarine INS Arihant had successfully launched a nuclear capable Submarine Launched Ballistic Missile (SLBM) in the Bay of Bengal with very high accuracy.

The Strategic Significance

- The capability of being able to **launch nuclear weapons submarine platforms** has great strategic significance in the context of **achieving a nuclear triad**.
- Nuclear triad is a **three-sided military-force structure** consisting of land-launched nuclear missiles, nuclear-missile-armed submarines, and strategic aircraft with nuclear bombs and missiles.
- This is especially important given **India's No-First-Use policy** i.e. India will use the weapon only in retaliation to a nuclear attack on Indian territory or against Indian forces anywhere.
- SSBNs are supposed to be the **best guarantor of a second-strike capability in a nuclear exchange**.
- SSBNs are believed to be the **most survivable of the three legs of the nuclear triad.** While land-based missiles and aircraft meant for nuclear weapons delivery can be targeted by the enemy in a first, counterforce strike, taking out SSBNs at sea is relatively more difficult.
- These submarines can not only survive a first strike by the adversary, but can also launch a strike in retaliation, thus **achieving 'Credible Nuclear Deterrence'.**
- The development of these capabilities is important in the light of **India's relations with China and Pakistan.** With China having deployed many of its submarines, including some that are nuclear powered and nuclear capable, India's capacity building on the nuclear powered submarines and of the nuclear capable missile which can be launched from them, is crucial for nuclear deterrence.

Miscellaneous

1) Guru Gobind Singh

About Guru Gobind Singh

- Guru Gobind Singh (1666-1708) was the **tenth and last Sikh Guru** who became the leader of the Sikhs at the age of 9 after his father and ninth Sikh Guru Guru Tegh Bahadur was executed on the orders of Mughal emperor Aurangzeb.
- He was a spiritual master, warrior, poet and philosopher.
- In 1699, he created the **Khalsa**, a community of the faithful who wore visible symbols of their faith and trained as warriors. Today the Khalsa comprises all practising Sikhs.
- Guru Gobind Singh started the tradition of the **Five K's** for the Khalsa. The Five K's are kesh (uncut hair), kanga (wooden comb), kara (iron or steel bracelet), kirpan (dagger) and kacchera (short breeches).
- His literary contributions include the **Jaap Sahib, Benti Chaupai, Amrit Savaiye,** etc.
- **Chandi di Var** was his famous composition is Punjabi.
- In 1708, he declared that Guru Granth Sahib will be the holy scripture of Sikhism and will be the permanent Guru of Sikhs.

Why in news?

- The birth anniversary of Guru Gobind Singh was celebrated recently.