Welfare Schemes

Comprehensive Handicrafts Cluster Development Scheme

Syllabus: GS2/ Welfare Schemes, Government policies

In News

- **Ministry of Textiles** has approved the continuation of the **Comprehensive Handicrafts Cluster Development Scheme** with a total outlay of 160 crore rupees.
    - The scheme will continue up to March 2026.

About the Scheme

- **Aim & Objectives:**
    - To create a **world-class infrastructure** that caters to the **business needs of the local artisans** and small and medium-sized enterprises to **boost production and export.**
    - It will provide employment, adequate training, the latest technology, and human resource development inputs. It is also coupled with market linkages and production diversification.
- **Key Provisions:**
    - Soft interventions like Baseline Survey and Activity Mapping, Skill Training, Improved Tool Kits, Marketing events, Seminars, Publicity, Design workshops, Capacity Building, etc will be provided.
    - Hard interventions like Common Facility Centers, Emporiums, Raw Material Banks, Trade Facilitation Centers, Common Production Centers, Design and Resource Centers will also be granted.
    - The integrated projects will be taken up for development through Central or State Handicrafts Corporations, Autonomous Body-Council-Institute, Registered Cooperatives, Producer company of artisans.

Textile Handicrafts Sector in India

- **About:**
    - As per Invest India, the domestic textiles and apparel sector has a **5 per cent share in India's GDP** and 12 per cent in export earnings. Textile handicraft products included bags, shawls, saris, home decor items, etc.
    - It is **labour- intensive sector** that employs 45 mn people.

- **Challenges:**
    - Competition in the domestic market.
    - Balance between high demand and supply.
    - Quality products are produced by competing countries like China, South Africa.
    - Better Trade terms offered by competing countries.
    - Increased and better technological support and Rand D facility in competing countries.
    - Outdated Technology
    - Lack of Foreign Investment
- **Major Initiatives:**
    - **Ambedkar Hastshilp Vikas Yojana:** This scheme was launched with the objective of mobilising artisans into self-help groups and societies with the agenda of facilitating bulk production and economies in the procurement of raw materials.
    - **Marketing Support and Services Scheme:** This scheme provides interventions for domestic marketing events to artisans in the form of financial assistance that aids them in organising and participating in trade fairs and exhibitions across the country and abroad.
    - **Production Linked Incentive (PLI) Scheme:** The Union Cabinet has recently given its approval to introduce the **Production-Linked Incentive (PLI) Scheme in Textiles** Products for Enhancing India's Manufacturing Capabilities and Enhancing Exports – **Atmanirbhar Bharat**.
    - **National Technical Textile Mission:** It aims to position the country as a global leader in technical textiles and increase the use of technical textiles in the domestic market.
    - **SAMARTH (Scheme For Capacity Building In Textile Sector):** To address the shortage of skilled workers, the government launched the Scheme for Capacity Building in Textile Sector (SCBTS) and named it SAMARTH Scheme.

Source: FE

Biodiversity & Environment

Global Coral Reef Monitoring Network (GCRMN) Report

Syllabus: GS3/ Environmental Pollution & Degradation

In News

- Recently, **Global Coral Reef Monitoring Network (GCRMN)** has released a report on the status of coral reefs across the world.

Key Highlights of the report

- The report underlined the **catastrophic consequences of global warming** but said that some coral reefs can be **saved by arresting greenhouse gases**.
- **Rising ocean temperatures** killed about 14% of the world's coral reefs between 2009 and 2018.
    - **Coral bleaching events** caused by elevated sea surface temperatures" as the biggest driver of coral loss.
    - It is equivalent to more than all of the living coral in Australia.
- **Reasons for the decline:** The report found that warming caused by climate change, overfishing, coastal development and declining water quality has placed coral reefs around the world under "relentless stress."

What are Coral Reefs?

- A coral reef is an **underwater ecosystem** characterized by **reef-building corals.**
- Reefs are formed of colonies of **coral polyps** held together by calcium carbonate.
- The coral polyps live in an endosymbiotic relationship with algae.
    - Algae provide up to 90 per cent of the coral's energy.
- **Temperature:**
    - The temperature of the water should not be below 20°C.
    - The most favourable temperature for the growth of the coral reefs is between 23°C to 25°C.
    - The temperature should not exceed 35°C.
- **Salinity:** Corals can survive only under saline conditions with an average salinity between 27% to 40%.
- **Shallow Water:** Coral reefs grow better in shallow water having a depth less than 50 m. The depth of the water should not exceed 200m.
- Coral reefs are divided into four classes:
    - fringing reefs,
    - barrier reefs,
    - atolls, and
    - patch reefs

Importance of Coral Reefs

- Coral Reefs provide an **important ecosystem for marine life**, protect coastal areas by reducing the power of waves hitting the coast, and provide a crucial source of income for millions of people.
- Coral reefs have an estimated **global value of £6 trillion each year**, due in part to their contribution to the fishing and tourism industries and the coastal protection they provide.
- More than 500 million people worldwide **depend on reefs for food, jobs and coastal defence.**
- Extracts from animals and plants living on reefs have been used to **develop treatments** for asthma, arthritis, cancer and heart disease.

Challenges to Coral Ecosystem

- **Physical damage or destruction** from coastal development, dredging, quarrying, destructive fishing practices and gear, boat anchors and groundings, and recreational misuse (touching or removing corals).
- **Pollution originates on land** but finds its way into coastal waters. There are many types and sources of pollution from land-based activities.
- **Overfishing** can alter the food-web structure and cause cascading effects, such as reducing the numbers of grazing fish that keep corals clean of algal overgrowth. **Blast fishing** (i.e., using explosives to kill fish) can cause physical damage to corals as well.
- **Coral harvesting** for the aquarium trade, jewellery, and curios can lead to over-harvesting of specific species, destruction of reef habitat, and reduced biodiversity.

What is Coral Bleaching?

- Coral bleaching occurs when environmental conditions surrounding coral change. One example is when temperatures drastically rise or fall, the coral will release **symbiotic algae** living inside their tissue, causing the coral to become white.
- Coral bleaching does not directly cause them to die but does place a higher degree of stress on the organisms.
- The algae provide food for the coral, and the longer a coral reef is exposed to conditions that cause bleaching, the more likely it is to starve and die.

Conclusion

- Maintaining the integrity and resilience of coral reef ecosystems is essential for the wellbeing of tropical coastal communities worldwide, and a critical part of the solution for achieving the Sustainable Development Goals under the 2030 Agenda for Sustainable Development.

Source: Reuters

Polity and Governance

State of the Education Report (SOER) for India: UNESCO

Syllabus: GS 2/Government Policies & Interventions/Development Processes & Development Industry

Context

- The United Nations Educational, Scientific and Cultural Organization (UNESCO) launched its **2021 State of the Education Report (SOER) for India: "No Teachers, No Class".**

About State of the Education Report (SOER) for India

- It is the annual flagship report of UNESCO and it is based on extensive research.
- This **third edition focused** on the theme of **teachers, teaching and teacher education, underscores t**hat the work of teaching is complex.

- It is largely based on analysis of **Periodic Labour Force Survey (PLFS) and the Unified District Information System for Education (UDISE)** data.
- It attempts to **provide an understanding** of key aspects of the teaching profession, **provides a profile of the 9.6 million teaching workforce**, as well the challenges of their **intricate teaching routine and their professional development.**
- **The report aims to serve as a reference for enhancing the implementation of the NEP and towards the realization of the SDG.4 target 4c on teachers.**

Key Highlights of the report

- **Single-teacher schools in the country:** There are nearly **1.2 lakh single-teacher schools** in the country, of which an overwhelming **89 per cent are in rural areas**.
    - States with a high percentage of single-teacher schools include Arunachal Pradesh (18.22 per cent), Goa (16.08 per cent), Telangana (15.71 per cent), Andhra Pradesh (14.4 per cent), Jharkhand (13.81 per cent), Uttarakhand (13.64 per cent),
- The **gender ratio** in professions is "overall balanced", with women teachers accounting for 50 per cent of the total.
    - However, there are inter-state, urban-rural imbalances.
    - The proportion of women teachers in rural locations is less than that in urban locations.
        - In rural areas, 28 per cent of primary school teachers are women versus 63 per cent in urban areas.
        - However, early childhood education teachers are predominantly women, and 88 per cent of them are in rural areas. At the secondary school level, 24 per cent of teachers in rural areas are women, versus 53 per cent in urban locations."
- **Average salary:** Based on PLFS data, the researchers also calculated that the average salary of private school teachers in the country (primary and secondary) is Rs 13,564, with rural private school teachers earning less at Rs 11,584. Women teachers in rural private schools earn an average of Rs 8212 per month.
- **Pandemic impact:** The ongoing pandemic has drawn attention to the **centrality of the profession and the importance of the quality of teaching.**
    - During this unprecedented health crisis, most teachers were found to have positive attitudes and beliefs about integrating technology in education, even though they perceived a lack of professional skills.

Recommendations

- Improve the terms of employment of teachers in both public and private schools
- Increase the number of teachers and improve working conditions in North-Eastern states, rural areas and 'aspirational districts
- Recognize teachers as frontline workers

- Increase the number of physical education, music, art, vocational education, early childhood and special education teachers.
- Value the professional autonomy of teachers
- **Build teachers' career pathways**
- Restructure pre-service professional development and strengthen curricular and pedagogical reform
- Provide teachers with meaningful ICT training
- Develop teaching governance through consultative processes, based on mutual accountability

Conclusion

- The report concludes with a set of ten action-oriented recommendations to address the challenges facing the teaching profession in India, and thus help achieve the NEP 2020 vision and objective – "Ensuring a quality education for all in the country".

United Nations Educational, Scientific and Cultural Organization (UNESCO)

- It was **formed in 1945**, is a specialized agency of the **United Nations (UN)** based in Paris.
- It works for **achieving peace and security** by promoting international collaboration through educational, scientific, and cultural reforms in order to increase universal respect for justice, the rule of law, and human rights along with fundamental freedom proclaimed in the United Nations Charter.
- It has 195 member states and ten associate members. **India is a founding member** of the organisation.

Source: IE

Polity and Governance

Anti-Defection Law

Syllabus: GS 2/Indian Polity, Governance

In News

- The Calcutta High Court has given West Bengal Assembly Speaker a deadline to pass an order in the defection case involving 3 MLAs.

Anti-defection law and its purpose

- These laws were introduced as the **Tenth Schedule via the 52nd Amendment Act, 1985** after multiple incidents like **Aaya Ram, Gaya Ram**.
    - It sets the provisions for disqualification of elected members on the grounds of defection to another political party.

- **Purpose of the Law**
    - To bring **stability to governments** by discouraging legislators from changing parties.
    - It ensures that the **Party ideologies prevail** over individual interests in **Indian Parliamentary Democracy**.

Status of Defection Cases across India

- Anti-defection proceedings are also going on in other states.
- In **Jharkhand**, former CM Babulal Marandi faces such proceedings after merging his party, Jharkhand Vikas Morcha (Prajatantrik), with the BJP.
- In **Rajasthan**, six Bahujan Samaj Party (BSP) MLAs have merged their legislature party with the ruling Congress.
    - It was challenged by the BSP, and the Supreme Court recently gave the six MLAs a final opportunity to explain the merger.
- In **Lok Sabha**, two Trinamool and one YSR Congress Party MPs face proceedings.
    - The Trinamool Congress wants to disqualify its 2 MPs for joining the BJP,
    - The YSRCP wants to disqualify its MP for "anti-party activities".

What constitutes Defection?

- The law covers 3 kinds of scenarios as **grounds for disqualification**.
    - Legislators elected on the ticket of one political party "voluntarily give up" membership of that party or vote in the legislature against the party's wishes.
        - A legislator's speech and conduct inside and outside the legislature can lead to deciding to voluntarily give up membership.
    - When an MP/MLA who has been elected as an independent joins a party later.
    - In the case of Nominated legislators, the law specifies that they can join a political party within 6 months of being appointed to the House, and not after such time.
- As per the 1985 Act, a 'defection' by one-third of the elected members of a political party was considered a 'merger'.
    - But the 91st Constitutional Amendment Act, 2003, changed this.
    - Now at least two-thirds of the members of a party have to be in favour of a "merger" for it to have validity in the eyes of the law.

Who is the Deciding Authority?

- Violation of the law in any of the aforementioned scenarios can lead to a legislator being penalised for defection.
- The **Presiding Officers of the Legislature (Speaker, Chairman)** are the deciding authorities in such cases.
- The Supreme Court has held legislators can challenge their decisions before the higher judiciary.

Key Controversies surrounding Defection Laws

- **No time frame was provided for Presiding Officer to decide in Law**
  - There have been many instances when a Speaker has not determined the case of a defecting MLA until the end of the legislature term.
  - There have also been instances of defecting MLAs becoming ministers while a defection petition against them has been pending before the Speaker.
  - Last year, the Supreme Court dismissed a minister in Manipur when the Speaker did not decide the defection petition against him even after 3 years.
    - The court held that ideally, Speakers should take a decision on a defection petition **within 3 months**.
- **Lost individualism of MLAs/MPs**
  - The anti-defection law punishes individual MPs/MLAs for leaving one party for another.
  - But it allows a **group of MP/MLAs (2/3rd of elected)** to join (i.e. merge with) another political party without inviting the penalty for defection.
- **No onus on Accepting Parties**
  - It does not penalise political parties for encouraging or accepting defecting legislators.
- **Failed to ensure the stability of governments**
  - Parties often have to sequester MLAs in resorts to prevent them from changing their allegiance or getting poached by a rival party.
    - Recent examples are Rajasthan (2020), Maharashtra (2019), Karnataka (2019 and 2018), and Tamil Nadu (2017).
  - Parties have also been able to use the anti-defection law to their advantage.
    - In 2019 in Goa, 10 of the 15 Congress MLAs merged their legislature party with the BJP.
    - In the same year, in Rajasthan, six BSP MLAs merged their party with the Congress (the case being heard in the Supreme Court), and
    - In Sikkim, 10 of the 15 MLAs of the Sikkim Democratic Front have joined the BJP.

Suggestions to improve the law

- Some commentators have said the law has failed and recommended its removal.
  - **Former Vice President Hamid Ansari** has suggested that it must apply only to save governments in no-confidence motions.
  - The Election Commission has suggested it should be the deciding authority in defection cases.
- Others have argued that the President and Governor should hear defection petitions.
- Last year, the Supreme Court said Parliament should **set up an independent tribunal** headed by a retired judge of the higher judiciary to decide defection cases swiftly and impartially.

Source: IE

Indian Economy

Coal Shortage in India

Syllabus: GS3/ Infrastructure- Energy

In News

- Recently, the Power Minister raised concerns about the coal shortage in India.

About

- As the economy recovers from pandemic blows, a sharp surge in energy demand has triggered an unprecedented fuel shortage at the country's coal-fired stations.
- **Current Availability:**
  - Of the 104 thermal plants monitored daily, 15 with a generation capacity of 14,875 MW had zero days of coal stocks.
  - While another 39 with a capacity of 52,530 MW had stocks of less than three days.
  - Another 6,960 MW of capacity is facing plant outage due to the unavailability of coal.

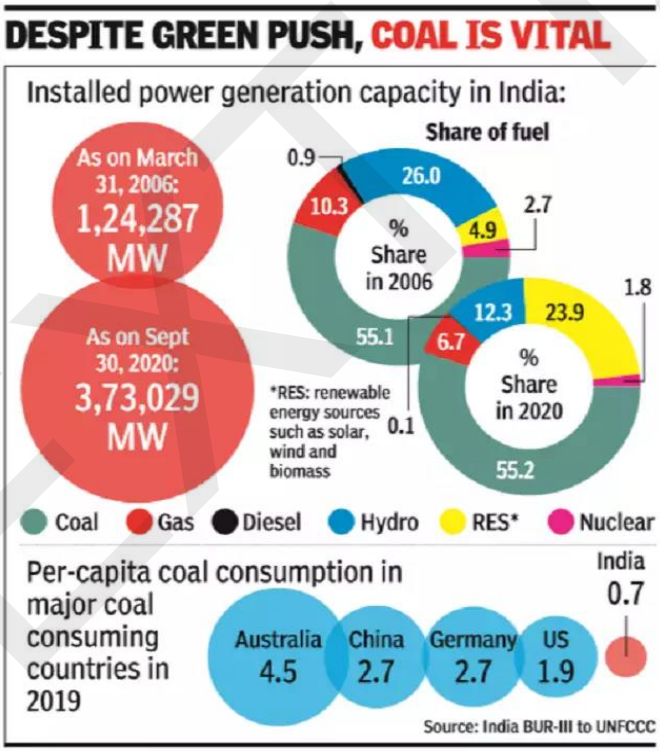

Image Courtesy: TOI

Significance

- **Primary energy contributor:**
  - In India, coal is the bulk primary energy contributor, with a 57% share of its energy mix. This is not expected to change soon.
  - By 2040, coal is expected to cover 42% of India's new demand for energy.

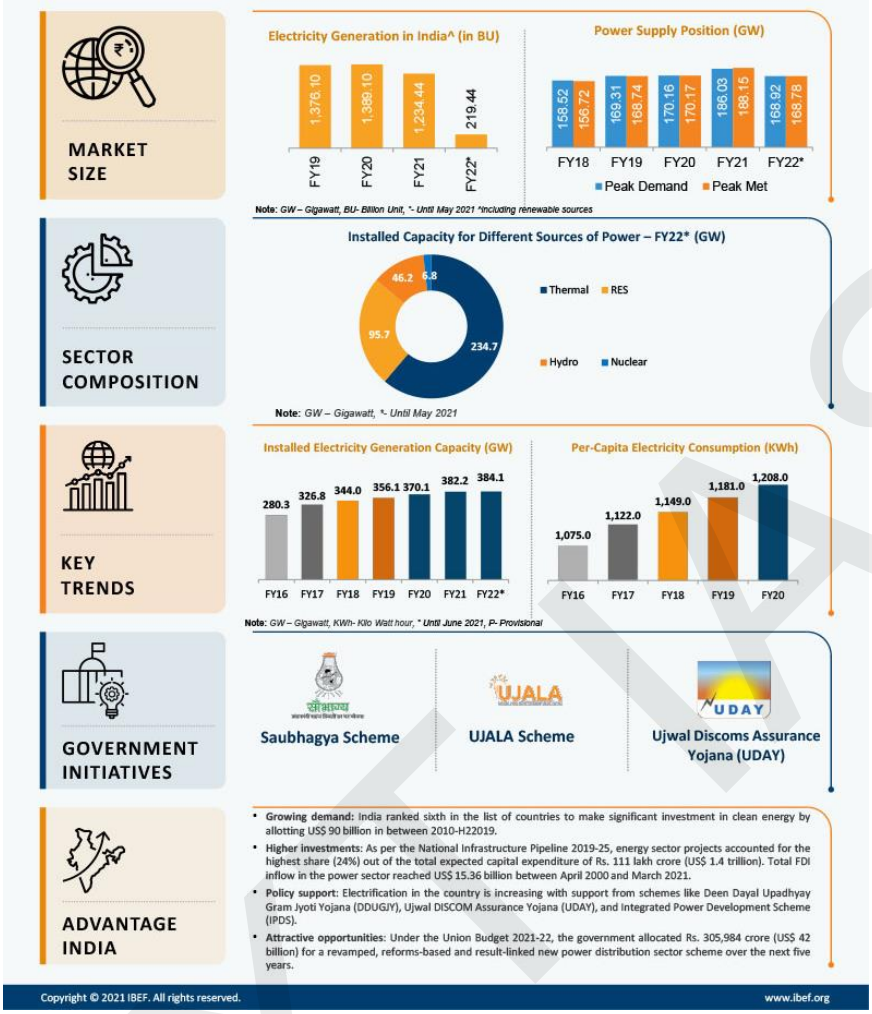

Image Courtesy: IBEF

Issues

- **Demand supply gap:**
  - Apart from the surge in demand and the supply shortage post-monsoon, the coal crisis has been spurred by the deficient stock build-up in April-June 2021, and the sharp fall in imports due to high international prices of coal.
  - Normally too, all-India electricity peak demand is recorded in October, which typically follows a monsoon-impacted mining output trough.
- **Import:**
  - Despite such large reserves of coal, we have to import nearly 170 million tonnes of coal.
- **Unfair Coal Block Allocation:**
  - The Coal Mines (Nationalisation) Act 1973 does not allow private companies to mine coal for sale to third parties, though captive mining is allowed for specified end-use sectors.

- There are political sensitivities in opening up the coal sector to private investment, but it is simply not logical to keep private investment out of coal when it is allowed in petroleum and Natural gas.
- There is a demand to amend the Coal Mines Act 1973.

- **Underground Mining:**
  - Only 15% of India's coal production is from underground mines.
  - The industry aims to reach a total coal production of 30% from underground mines by 2030.
  - Considering emerging hurdles in forest clearance and land acquisition in future, serious efforts need to be made to increase the share of underground production by focussing on longwall technology and productivity in underground mines.
- **Coal Regulation and Pricing:**
  - India has the fifth-largest coal reserves in the world.
  - There are huge power expansions plans, which need to be fueled by coal.
  - However, there has been **no coal regulator**.
  - The idea of a Coal Regulatory Authority was mooted in 2008, but it could not be established for unknown reasons.

Conclusion

- The move to amend the **Mineral Concession Rules, 1960** is expected to benefit operators of 100 coal and lignite blocks, with an annual production capacity of 500 tonnes.
  - Captive mines are operated by end-users of coal, including steel and power sector firms.
  - The amended rules paved the way for releasing additional coal in the market by greater utilisation of mining capacities of captive coal and lignite blocks, which were being only partly utilised, owing to limited production of coal for meeting their captive needs.

Source: IE

Indian Economy

Energy Needs for India

Syllabus: GS3/ Infrastructure: Energy

In News

- Recently, the officials stated that India is running out of options due to the relentless surge in international oil prices.

About

- India imports 85% of its crude oil needs and about half of its natural gas requirement.
- While crude oil is turned into fuels such as petrol and diesel, gas is used as CNG in automobiles and fuel in factories.

Consequences

- With no respite from surging international prices, OMCs have started to increase the retail selling price of petrol and diesel.
- Unless international prices relent, oil companies will have no option but to continue passing on the increase to consumers

Indian Oil and Gas Industry

- **Introduction:**
    - Oil and gas sector is among the **eight core industries in India** and plays a major role in influencing decision making for all the other important sections of the economy.
    - India's **economic growth** is closely related to its **energy demand**, therefore, the need for oil and gas is projected to grow more, thereby making the sector quite conducive for investment.
    - The Government has adopted several policies to fulfil the increasing demand.
        - It has allowed **100% Foreign Direct Investment (FDI)** in many segments of the sector, including natural gas, petroleum products and refineries among others.
            - Today, it attracts both domestic and foreign investment as attested by the presence of Reliance Industries Ltd (RIL) and Cairn India.
- **IEA (India Energy Outlook) 2021:**
    - According to IEA (India Energy Outlook 2021), **primary energy demand** is expected to nearly double to 1,123 million tonnes of oil equivalent, as the country's gross domestic product (GDP) is expected to increase to USD 8.6 trillion by 2040.
- **Market Size:**
    - India is expected to be one of the largest contributors to **non-OECD petroleum consumption** growth globally.
    - Crude Oil import rose sharply to US$ 101.4 billion in 2019-20 from US$ 70.72 billion in 2016-17.
- **International Energy Agency (IEA):**
    - According to the International Energy Agency (IEA), consumption of **natural gas** in India is expected to grow by 25 billion cubic metres (bcm), registering an average annual growth of 9% until 2024.

- India's medium-term outlook for natural gas consumption remains solid due to **rising infrastructure** and **supportive environment policies**.
- Industrial consumers are expected to account for ~40% of India's net demand growth.
- The demand is also expected to be driven by sectors such as residential, transport and energy.

- **Expected Statistics:**
  - India's energy demand is expected to double to 1,516 Mtoe by 2035 from 753.7 Mtoe in 2017. Moreover, the country's share in global primary energy consumption is projected to increase by two-fold by 2035.
  - Crude oil consumption is expected to grow at a CAGR of 3.60% to 500 million tonnes by 2040 from 221.56 million tonnes in 2017.
  - India's oil demand is projected to rise at the fastest pace in the world to reach 10 million barrels per day by 2030, from 5.05 million barrel per day in 2020.
  - Natural Gas consumption is forecast to increase at a CAGR of 4.18% to 143.08 million tonnes by 2040 from 58.10 million tonnes in 2018.
  - Diesel demand in India is expected to double to 163 million tonnes (MT) by 2029-30.
- **Investments:**
  - According to data released by the **Department for Promotion of Industry and Internal Trade Policy (DPIIT)**, the petroleum and natural gas sector attracted FDI worth US$ 7.92 billion between April 2000 and March 2021.

Challenges

- **Decreasing Ageing Wells:**
  - There is no more easy oil and gas available in India.
  - Producers would have to invest in extracting oil and gas using **technologically intensive** means from more difficult fields such as ultra-deepwater fields.
- **Balancing Environment With Extraction:**
  - Indian oil and gas industry leaders are faced with the twin challenge of responding to the **changing environment** while sticking to the **commitment of reduction of fossil fuel consumption**.
- **Monopoly of 2 state-owned Companies:**
  - Crude oil production in India is dominated by two major state-owned exploration and production companies, ONGC and Oil India.
  - These companies are the key bidders for hydrocarbon blocks in auctions and were the only successful bidders in the fifth and latest round of auctions under the Open Acreage Licensing Policy (OALP) regime with ONGC bagging seven of the eleven oil and gas blocks on offer and Oil India acquiring rights for the other four.

- **Import Dependent:**
    - The Indian economy is dependent on fossil fuels and there is no discernible end in sight to this dependence.
    - India imports approximately 85% of its crude oil requirements and is exposed to the volatility of the international oil market.
- **International Conflicts:**
    - A major chunk comes from the Middle East, predominantly Saudi Arabia, Iraq and Iran, which faces deep political and social fault lines and there is no knowing when our supply lines might get ruptured.
- **Overseas' interest:**
    - Interest from foreign players in oil and gas exploration in India had been low.
- **Exploration:**
    - There have been few substantive commercial discoveries in recent years, in large part because the bulk of the reserves are in complex geological structures and harsh terrain (Himalayan foothills or deep waters offshore).
    - They are difficult to find but even when found, the costs incurred are often so high that except in market conditions of high prices, the discovery is not commercially viable.
- **Low private participation:**
    - Low private participation in India's upstream oil and gas sector is due to delays in the operationalisation of hydrocarbon blocks due to delays in major clearances including environmental clearances and approval by the regulator of field development plans.
- **Structural Challenges:**
    - In 2021 structural changes are brought by the Covid-19 pandemic.

Government Initiatives

- **Assam:**
    - In February 2021, the **government launched key oil & gas projects** in Assam, such as INDMAX Unit at Indian Oil's Bongaigaon Refinery, Oil India Limited's secondary tank farm at Madhuban, Dibrugarh and a 'Gas Compressor Station' at Hebeda Village, Makum and Tinsukia remotely from Dhemaji in Assam.
- **Manali:**
    - In February 2021, the government launched key oil and gas projects such as the Ramanathapuram – Thoothukudi natural gas pipeline and Gasoline Desulphurisation Unit at Chennai Petroleum Corporation Limited, Manali.
- **Centre of Excellence:**
    - In February 2021, IndianOil Corp. Ltd. signed a 'statement of intent with Greenstat Hydrogen India Pvt. Ltd. to establish a centre of excellence for the Hydrogen value chain and other related technologies such as hydrogen storage, fuel cells, etc.

- **LNG facility:**
    - In July 2021, the Minister for Road Transport and Highways inaugurated India's first liquefied natural gas (LNG) facility plant in Nagpur, Maharashtra.
- **Crude procurement diversification:**
    - In July 2021, India diversified procurement for crude by announcing its first shipment from **Guyana**. This move also indicates a future roadmap for the extended alliance with Guyana in the oil & gas sector.
- **Boost Hydrocarbon Production:**
    - In June 2021, the government announced that it will auction unmonetized large oil and gas fields of state-owned ONGC and OIL to boost hydrocarbon production.
- **Extra funding:**
    - In February 2021, Prime Minister announced that the Government of India plans to invest ~Rs. 7.5 trillion (US$ 102.49 billion) on oil and gas infrastructure in the next five years.
    - In Union Budget 2021, the government allocated funds worth Rs. 12,480 crore (US$ 1.71 billion) for direct benefit transfer of LPG (liquefied petroleum gas) and Rs. 1,078 crore (US$ 147.31 million) to feedstock subsidy to BCPL/Assam Gas Cracker Complex.
- **PM Ujjwala Yojana:**
    - In Union Budget 2021, the Finance Minister announced to provide 1 crore more LPG connections under Pradhan Mantri Ujjwala Yojana (PMUY) scheme.
    - **LNG Policy:**
        - The Ministry of Petroleum and Natural Gas released a draft LNG policy that aims to increase the country's LNG regasification capacity from 42.5 million tonnes per annum (mtpa) to 70 mtpa by 2030 and 100 mtpa by 2040.
    - **Ethanol Blended Petrol (EBP) Programme:**
        - The Ministry of Petroleum and Natural Gas released an 'Ethanol Procurement Policy' on a long-term basis under the 'Ethanol Blended Petrol (EBP) Programme' (October 11, 2019), which covers modalities for long-term ethanol procurement, proposed mechanisms for long-term procurement contracts, pricing methodology and other topics.
    - **Kayakave Kailasa:**
        - As per Union Budget 2019-20, Indian Scheme 'Kayakave Kailasa', the Ministry of Petroleum & Natural Gas has enabled **SC/ST entrepreneurs** in providing bulk LPG transportation.

        - State-run energy firms, Bharat Petroleum, Hindustan Petroleum and Indian Oil Corporation, plan to spend US$ 20 billion on refinery expansions to add units by 2022.
    - **Compressed biogas plants:**
        - The Government is planning to set up around 5,000 compressed biogas (CBG) plants by 2023.

Way Ahead

- The **energy demand of India** is anticipated to grow faster than the energy demand of all major economies on the back of continued robust economic growth.
- The adoption and promotion of **renewable energy** in India from an economic and sustainability perspective is the need of the hour.
- India should concentrate on low carbon energy consumption for achieving these economic goals and development.

Source: TH

Facts In News

Science & Technology

Nobel Prize for Physics 2021

Syllabus: GS 3/Developments, Applications & Effects on Everyday Life

In News

- Recently, the Nobel Prize for physics has been awarded to scientists from Japan, Germany and Italy for their work to **understand complex systems, such as the Earth's climate.**
    - The Nobel Prize in Physics is awarded by the **Royal Swedish Academy** of Sciences, Stockholm, Sweden.

About

- Syukuro Manabe (90) and Klaus Hasselmann (89) were cited for their work in "**the physical modelling of Earth's climate, quantifying variability and reliably predicting global warming".**
    - The second half of the prize was awarded to Giorgio Parisi (73) for "the discovery of the **interplay of disorder and fluctuations** in physical systems from atomic to **planetary scales."**
- The combined work of the three laureates has contributed to humanity's understanding of the effects of carbon dioxide emissions into the atmosphere, the accelerating greenhouse effect, and cyclical patterns in natural phenomena (starling murmurations) and long-term climate phenomena (recurring ice ages).

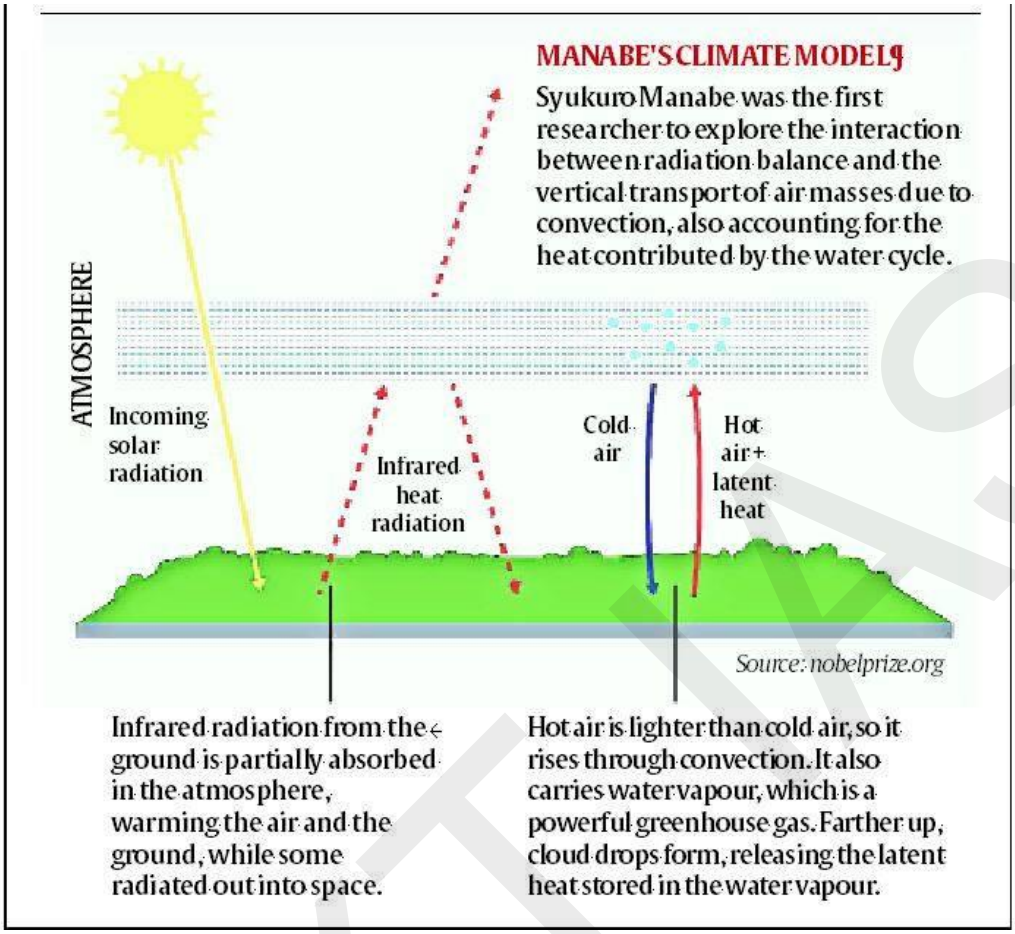

Image Courtesy : IE

Nobel Prize laureates in physics

- The Royal Swedish Academy of Sciences is responsible for the selection of the **Nobel Prize laureates in physics.**
- The Academy appoints a working body, the Nobel Committee for Physics, which screens the nominations and presents a proposal for final candidates.
- The committee consists nominally of five voting members, but for many years, it also includes voting adjunct members.
- The Committee's proposal is discussed in a larger body, the Physics Class of the Academy, who may suggest a modification or forward a different proposal to the Academy.
- Finally, additional proposals may be raised at the final Academy meeting.
- It is in principle possible to suggest that no Prize be given the current year, but that is a seldom-used choice.

Who is eligible for the Nobel Prize in Physics?

- The candidates eligible for the Physics Prize are those nominated by qualified persons who have received an invitation from the Nobel Committee to submit names for consideration. No one can nominate himself or herself.

How are the Nobel Prize laureates selected?

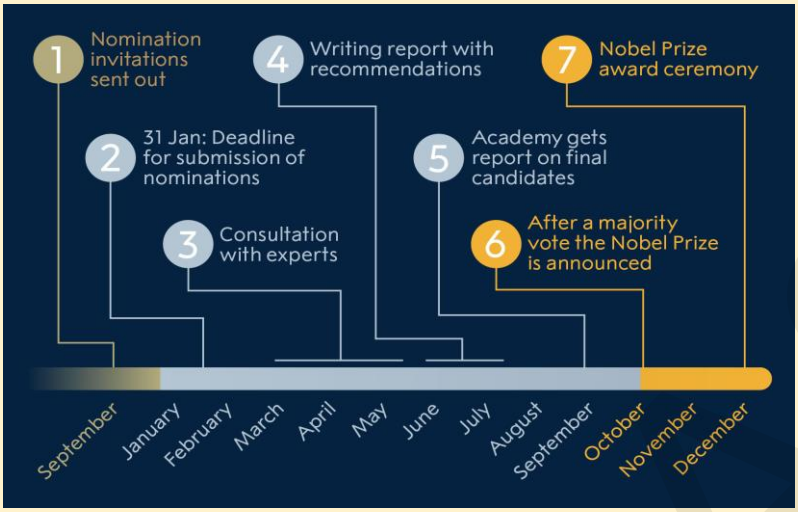

Image Courtsey:nobelprize.org

Source: TH

Polity and Governance

Health Information Management System (HIMS) Project

Syllabus: GS 2/Government Policies & Interventions

In News

- Recently, the Delhi Cabinet gave a financial nod to its ambitious **Health Information Management System (HIMS) Project.**

About

- All the **medical services** will be brought under **one platform, through the HIMS portal.**
- The Delhi government will conduct surveys across the entire State to make sure every citizen can **get their eHealth card made.**
- The doctors will be able to see a **patient's medical history using** the card and the patients will be **able to make appointments from home**.
- All citizens between **1 and 18 years** would be issued a health card linked to their parent's health card.
    - All newborns (up to 1 year) would be linked to their **mother's health card.**

Significance:

- It aims to give a boost to the **healthcare infrastructure.**
- It will help us know how many beds are vacant in a hospital, the status of medicine stocks and staff, the number of ventilators and any other information about the medical infrastructure.

Source: TH

Art and Culture

Bababudangiri Shrine

Syllabus: GS 1/Art and Culture

Context

- Karnataka Cabinet panel to study **Bababudangiri shrine** issue.

About Baba Budangiri

- It is a **sacred pilgrimage spot in Chikmagalur** for both the Hindu and Muslim communities.
- It is renowned for its shrine to the Sufi Saint, Hazrat Dada Hayat Khalandar (also known as Baba Budan). This is a famous pilgrim site for both Hindus and Muslims and is often flocked by travellers. This famous mountain range is also known as Dattagiri Hill Range, as the shrine here is believed to be associated with Hindu God Guru Dattatreya.
    - Baba Budan was a 17th century Sufi whose shrine is at Baba Budangiri and Dattatreya is an incarnation of Lord Shiva.

Source: TH

Science and Technology

Shanti Swarup Bhatnagar Award 2021

Syllabus: GS3/ Science & Technology

In Context

- Recently, **India's highest science award** called "Shanti Swarup Bhatnagar Award 2021" was presented to the **11 scientists on the occasion of the 80th foundation day of the Council for Scientific & Industrial Research (CSIR).**

Key Points

- **About:**
    - The award is **named after the Founder-Director of the Council of Scientific & Industrial Research (CSIR) India, the late Dr (Sir) Shanti Swarup Bhatnagar** and is known as the '**Shanti Swarup Bhatnagar (SSB) Prize for Science and Technology.**
- **Purpose:**
    - It is the **most coveted national recognition bestowed upon young scientists** and engineers to honour their research and developmental work in India.

- **Eligibility:**
    - Any citizen of India engaged in research in any field of science and technology **up to the age of 45 years** is eligible for the prize.
    - **Overseas Citizens of India (OCI) and Persons of Indian Origin (PIO) working in India are also eligible.**
- The prize is awarded on the basis of contributions made through **work done in India only during the five years preceding the year of the prize.**
- **Nature of the prize**
    - The prize comprises a citation, a plaque, and a **cash award of Rs. 5 lakh**.
    - In addition, recipients also get **Rs. 15,000 per month up to the age of 65 years.**

Source: PIB

❑❑❑❑