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POLITY/GOVERNANCE

National Pharmaceutical Pricing Authority

To ensure sufficient availability of critical medical equipment for clinical management of COVID-19 in the country, the Union Health Ministry said that it had identified a list of critical medical equipment and had requested the National Pharmaceutical Pricing Authority (NPPA) to ensure its availability at affordable prices.

Role of NPPA in COVID-19 pandemic -

- A stakeholders consultation with medical devices industry associations and civil society groups was held by the NPPA wherein it was stressed that **all the manufacturers and importers of critical medical equipment shall ensure sufficient availability of the same.**
- It was reiterated that all the **medical devices have come under price regulation** accordingly, price increase of medical devices would be monitored.
- The NPPA told the industry that it was not **“business as usual”** and **not the time to profiteer.** The Medical Devices Industry Associations have been urged to **bring down the retail price of critical equipment in the public interest** in the prevailing situation as has been done by the manufacturers/importers of N-95 masks.

About National Pharmaceutical Pricing Authority -

- The National Pharmaceutical Pricing Authority (NPPA), is **an independent body of experts under the Ministry of Chemicals and Fertilisers**, formed in the year 1997 so as to implement and **enforce the provisions of the Drugs Prices Control Order (DPCO)** for regulating medicine prices in accordance with the powers delegated to it.
- NPPA is delegated with the powers to exercise the functions of the Central Government in respect of various paragraphs of the Drug Price Control Orders (DPCO) - DPCO, 1995 and now DPCO, 2013.
- The functions of NPPA include **fixation and revision of prices of scheduled drugs** (those medicines included in Schedule I of the DPCO which are subject to price control) and formulations, Monitoring of prices of decontrolled drugs and formulations, Implementation and enforcement of the provisions of DPCO in accordance with the powers delegated, Monitoring the availability of drugs, identify shortages, taking remedial steps, etc.
- The organisation is also **entrusted with the task of recovering amounts overcharged by manufacturers** for the controlled drugs from the consumers.
- All the powers of Government of pricing according to **Essential Commodities Act** have been delegated to it. Under DPCO, 2013 the powers to Review are vested with the Government.

Country of origin

Amid the clamour to ban China-made goods, the Union Ministry of Consumer Affairs has sent out a reminder to all e-commerce portals to ensure that the “country of origin” of the products being sold by them should be mentioned as part of the mandatory declarations.

Under what law these rules are being invoked?

- The Ministry in its reminder invoked the **Legal Metrology (Packaged Commodities) Rules, 2011.**
- These rules make it **mandatory for all manufacturers to declare the package name and address of the manufacturer, common and generic name of commodity, net quantity, month and year of manufacturing, MRP and consumer care details.**
- In addition to these, in 2017, new provisions were added for e-commerce websites, **making it compulsory for them to display these information** along with **“declaration of country of origin or manufacture or assembly”** and a clear mention of expiry date.
- There are punitive provisions in the law. For the first offence, a penalty up to ₹25000 can be charged, for the second offence, the fine may extend to ₹50,000.
- Any subsequent offences can attract **a jail term of one year.**

- Though the law has been in place for the last three years, the Ministry has no details on how many times it has been invoked to penalise any of these portals.

Consumer Protection Act, 2019

The Consumer Protection Act, 2019 has come in to force recently. The new Act will empower consumers and help them in protecting their rights through its various notified Rules and provisions like **Consumer Protection Councils, Consumer Disputes Redressal Commissions (CDRCs), Mediation, Product Liability and punishment for manufacture or sale of products containing adulterant / spurious goods.**

Salient features of Consumer Protection Act -

1. Central Consumer Protection Authority -

- The Act includes establishment of the **Central Consumer Protection Authority (CCPA)** to promote, protect and enforce the rights of consumers.
- The **CCPA will be empowered** to conduct investigations into violations of consumer rights and institute complaints/prosecution, order recall of unsafe goods and services, order discontinuance of unfair trade practices and misleading advertisements, impose penalties on manufacturers/endorsers/publishers of misleading advertisements.

2. E-Commerce rules -

- The rules for prevention of **unfair trade practice by e-commerce platforms** will also be covered under this Act.
- Under this act **every e-commerce entity is required to provide information** relating to return, refund, exchange, warranty and guarantee, delivery and shipment, modes of payment, grievance redressal mechanism, payment methods, security of payment methods, charge-back options, etc. including country of origin which are necessary for enabling the consumer to make an informed decision at the pre-purchase stage on its platform.
- e-commerce platforms have to acknowledge the receipt of any consumer complaint within forty-eight hours and redress the complaint within one month from the date of receipt under this Act.
- The New Act introduces the **concept of product liability** and brings within its scope, the product manufacturer, product service provider and product seller, for any claim for compensation.

3. Dispute Resolution -

- The new Act provides for **simplifying the consumer dispute adjudication process** in the consumer commissions, which include, among others, empowerment of the State and District Commissions to review their own orders, enabling a consumer to file complaints electronically and file complaints in consumer Commissions that have jurisdiction over the place of his residence, videoconferencing for hearing and deemed admissibility of complaints if the question of admissibility is not decided within the specified period of 21 days.
- **An Alternate Dispute Resolution mechanism** of Mediation has been provided in the new Act. This will simplify the adjudication process. A complaint will be referred by a Consumer Commission for mediation, wherever scope for early settlement exists and parties agree for it. Mediation will be held in the Mediation Cells to be established under the aegis of the Consumer Commissions. There will be no appeal against settlement through mediation.
- As per the Consumer Disputes Redressal Commission Rules, there will be **no fee for filing cases upto Rs. 5 lakh**. There are provisions for filing complaints electronically, credit of amount due to unidentifiable consumers to Consumer Welfare Fund (CWF). The State Commissions will furnish information to Central Government on a quarterly basis on vacancies, disposal, pendency of cases and other matters.

4. Penal provisions -

- The New Act also introduces the **concept of product liability** and brings within its scope, the product manufacturer, product service provider and product seller, for any claim for compensation.
- The Act provides for **punishment by a competent court for manufacture or sale of adulterant/spurious goods**. The court may, in case of first conviction, suspend any licence issued to the person for a period of up to two years, and in case of second or subsequent conviction, cancel the licence.

- Under this new Act, besides general rules, there are Central Consumer Protection Council Rules, Consumer Disputes Redressal Commission Rules, Appointment of President & Members in State/District Commission Rules, Mediation Rules, Model Rules and E-Commerce Rules and Consumer Commission Procedure Regulations, Mediation Regulations and Administrative control over State Commission & District Commission Regulations.
- **District CDRC** – Entertain complaints where value of goods and services does not exceed Rs 1 crore. **State CDRC** – Entertain complaints where the value is more than Rs 1 crore but does not exceed Rs 10 crore. **National CDRC** – Entertain complaints where the value exceeds Rs 10 crore. One major change from the 2018 bill is that the new bill does not insist on having at least 50% of the commission to be from judicial background.

About Central Consumer Protection Council -

- The Central Consumer Protection Council Rules are provided for constitution of the **Central Consumer Protection Council**, an advisory body on consumer issues, headed by the Union Minister of Consumer Affairs, Food and Public Distribution with the Minister of State as Vice Chairperson and 34 other members from different fields. The Council, which has a three-year tenure, will have Minister-in-charge of consumer affairs from two States from each region- North, South, East, West, and NER.
- The objects of the Councils, as per the Act, shall be to promote and protect the rights of the consumers such as:
 - The **right to be protected** against the marketing of goods and services which are hazardous to life and property
 - The **right to be informed** about the quality, quantity, potency, purity, standard and price of goods or services, as the case may be so as to protect the consumer against unfair trade practices;
 - The **right to be assured, wherever possible, access to a variety of goods and services** at competitive prices;
 - The **right to be heard** and to be assured that consumer's interests will receive due consideration at appropriate forums
 - The **right to seek redressal** against unfair trade practices or restrictive trade practices or unscrupulous exploitation of consumers and
 - The **right to consumer education**.

National Education Policy, 2020

The Union Cabinet has approved the National Education Policy 2020, making way for large scale, transformational reforms in both school and higher education sectors.

Background of education policies in India -

- As early as 1948, the Union Government established the University Education Commission and the Secondary Education Commission in 1952 to develop proposals to modernise India's education system.
- Post-independence, University Education Commission under Dr S Radhakrishnan recommended creation of UGC. UGC was created in 1953 and granted statutory status in 1956.
- **Second Five Year Plan** focused on opening institutes of great importance and NCERT for primary and secondary education. Another Education Commission in 1964 was established under the chairmanship of Dr DS Kothari with the objective of modernising education in India.
- First National Education Policy in 1968, was a "radical restructuring" & provided equal opportunity to achieve national integration & economic development.
- 42nd Constitutional Amendment Act, 1976 curbed the deteriorating condition of education by shifting it to the **concurrent list**.
- **National Education Policy, 1986** called for a "child-centred approach" in primary education & launched "Operation Blackboard" to improve infrastructure. It also emphasised on inclusive opportunity for women, SC & ST's.
- **1992 modification to the National Education Policy, 1986** focused on strengthening higher education by its "Common Minimum Programme" which envisaged common entrance examination on all India basis for admission to professional and technical programmes in the country.

- **86th Constitutional Amendment Act, 2002** made Education 'a Fundamental Right', under Article 21-A and imbibed education related provisions in Directive Principles and Fundamental Duties too. In 2009, the Right to Education was enforced providing compulsory education to all children of age 6-14.
- Right to education has helped to increase the enrolment rate quickly with which government is now focusing on improving the quality by training teachers under **Madan Mohan Malviya National Mission & 4 year courses for B-Ed**.
- T.S.R. Subramaniam Committee Report (May 27, 2016).
- Dr. K. Kasturirangan Committee Report (May 31, 2019).

Outcomes of National Education Policy, 2020 -

- Universalisation from Early Childhood Children Education (ECCE) to Secondary Education by 2030, aligning with SDG4.
- Attaining Foundational Learning & Numeracy Skills through National Mission by 2025.
- 100% GER in Pre-School to Secondary Level by 2030.
- Teachers to be prepared for assessment reforms by 2023.
- Inclusive & Equitable Education System by 2030.
- Board Exams to test core concepts and application of knowledge.
- Every Child will come out of School adept in at least one Skill.
- Common Standards of Learning in Public & Private Schools.

Highlights of the new policy -

1. School Education -

- New Policy aims for **universalisation of education** from pre-school to secondary level with 100 % Gross Enrolment Ratio (GER) in school education by 2030.
- NEP 2020 will bring 2 crore out of school children back into the main stream through open schooling system.
- The current 10+2 system to be replaced by a **new 5+3+3+4 curricular structure** corresponding to ages 3-8, 8-11, 11-14, and 14-18 years respectively. This will bring the hitherto uncovered age group of 3-6 years under school curriculum, which has been recognised globally as the crucial stage for development of mental faculties of a child. The new system will have 12 years of schooling with three years of Anganwadi/ pre schooling.
- Emphasis on **Foundational Literacy and Numeracy**, no rigid separation between academic streams, extracurricular, vocational streams in schools ; Vocational Education to start from Class 6 with Internships
- Teaching up to at least Grade 5 to be in **mother tongue/ regional language**. No language will be imposed on any student.
- Assessment reforms with **360 degree Holistic Progress Card**, tracking Student Progress for achieving Learning Outcomes.
- A new and comprehensive **National Curriculum Framework for Teacher Education**, NCFTE 2021, will be formulated by the NCTE in consultation with NCERT. By 2030, the minimum degree qualification for teaching will be a 4-year integrated B.Ed. degree .

2. Higher Education -

- **Gross Enrolment Ratio** in higher education to be raised to **50% by 2035**; 3.5 crore seats to be added in higher education.
- The policy envisages broad based, multi-disciplinary, holistic Under Graduate education with flexible curricula, creative combinations of subjects, integration of vocational education and multiple entry and exit points with appropriate certification. UG education can be of 3 or 4 years with multiple exit options and appropriate certification within this period. For example, certificate after 1 year, advanced diploma after 2 years, Bachelor's degree after 3 years and Bachelor's with research after 4 years.
- **Academic Bank of Credits** to be established to facilitate Transfer of Credits. It will be established for digitally storing academic credits earned from different institutes so that these can be transferred and counted towards final degree earned.
- Multidisciplinary Education and Research Universities (MERUs), at par with IITs, IIMs, to be set up as models of best multidisciplinary education of global standards in the country.

- The **National Research Foundation** will be created as an apex body for fostering a strong research culture and building research capacity across higher education.
- **Higher Education Commission of India (HECI)** will be set up as a **single overarching umbrella body for entire higher education, excluding medical and legal education**. HECI to have four independent verticals - National Higher Education Regulatory Council (NHERC) for regulation, General Education Council (GEC) for standard setting, Higher Education Grants Council (HEGC) for funding, and National Accreditation Council (NAC) for accreditation. Public and private higher education institutions will be governed by the same set of norms for regulation, accreditation and academic standards.
- **Affiliation of colleges** is to be **phased out in 15 years** and a stage-wise mechanism is to be established for granting graded autonomy to colleges. Over a period of time, it is envisaged that every college would develop into either an Autonomous degree-granting College, or a constituent college of a university.

3. Others -

- An autonomous body, the **National Educational Technology Forum (NETF)**, will be created to provide a platform for the free exchange of ideas on the use of technology to enhance learning, assessment, planning, administration.
- NEP 2020 emphasises setting up of **Gender Inclusion Fund, Special Education Zones** for disadvantaged regions and groups.
- New Policy promotes **Multilingualism in both schools and higher education**. National Institute for Pali, Persian and Prakrit, Indian Institute of Translation and Interpretation to be set up.
- The Centre and the States will work together to **increase the public investment in Education** sector to reach **6% of GDP** at the earliest.
- Keeping in line with the recommendations of the TSR Subramanian Committee, the Ministry of Human Resources and Development has been renamed as the Ministry of Education.

Background of National Education Policy, 2020 -

- NEP 2020 has been formulated after an unprecedented process of consultation that involved nearly over 2 lakh suggestions from 2.5 lakhs Gram Panchayats, 6600 Blocks, 6000 ULBs, 676 Districts. The MHRD initiated an unprecedented collaborative, inclusive, and highly participatory consultation process from January 2015.
- In May 2016, '**Committee for Evolution of the New Education Policy**' under the Chairmanship of **Late Shri T.S.R. Subramanian**, Former Cabinet Secretary, submitted its report. Based on this, the Ministry prepared '**Some Inputs for the Draft National Education Policy, 2016**'.
- In June 2017 a '**Committee for the Draft National Education Policy**' was constituted under the Chairmanship of eminent scientist **Dr. K. Kasturirangan**, which submitted the **Draft National Education Policy, 2019** to the Hon'ble Human Resource Development Minister on 31st May, 2019. Later, the Draft National Education Policy 2019 was opened for views/suggestions/comments of stakeholders, including public.

ECONOMICS

Agriculture Infrastructure Fund

The Union Cabinet has given its approval to a new pan India Central Sector Scheme-Agriculture Infrastructure Fund.

Details -

The scheme shall provide a **medium - long term debt financing facility for investment in viable projects for post-harvest management Infrastructure and community farming** assets through interest subvention and financial support.

What is the scheme?

- Under the scheme, **Rs. One Lakh Crore will be provided by banks and financial institutions as loans** to Primary Agricultural Credit Societies (PACS), Marketing Cooperative Societies,

Farmer Producers Organisations (FPOs), Self Help Group (SHG), Farmers, Joint Liability Groups (JLG), Multipurpose Cooperative Societies, Agri-entrepreneurs, Startups, Aggregation Infrastructure Providers and Central/State agency or Local Body sponsored Public Private Partnership Project.

- **Loans will be disbursed in four years** starting with sanction of Rs. 10,000 crore in the current year and Rs. 30,000 crore each in next three financial years.
- All loans under this financing facility **will have interest subvention of 3% per annum up to a limit of Rs. 2 crore**. This subvention will be **available for a maximum period of seven years**.
- Further, **credit guarantee coverage will be available for eligible borrowers from this financing facility under Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) scheme** for a loan up to Rs. 2 crore. The fee for this coverage will be paid by the Government.
- In case of FPOs the credit guarantee may be availed from the facility created under FPO promotion scheme of Department of Agriculture, Cooperation & Farmers Welfare (DACFW).
- Moratorium for repayment under this financing facility may vary subject to minimum of 6 months and maximum of 2 years.
- The **National, State and District level Monitoring Committees** will be set up to ensure real-time monitoring and effective feed-back.
- The **duration of the Scheme** shall be from FY2020 to FY2029 (10 years).

Significance -

- The Project by way of facilitating formal credit to farm and farm processing-based activities is expected to **create numerous job opportunities in rural areas**.
- Agri Infra fund will be **managed and monitored through an online Management Information System (MIS) platform**.
- It will enable all the qualified entities to apply for loan under the fund. The **online platform will also provide benefits** such as transparency of interest rates offered by multiple banks, scheme details including interest subvention and credit guarantee offered, minimum documentation, faster approval process as also integration with other scheme benefits.

Affordable Rental Housing Complexes

The Union Cabinet has given its approval for developing of Affordable Rental Housing Complexes (ARHCs) for urban migrants/poor as a sub-scheme under Pradhan Mantri Awas Yojana-Urban (PMAY-U).

What is the scheme?

- Existing vacant government funded housing complexes will be converted in ARHCs through Concession Agreements for 25 years.
- Concessionaire will make the complexes liveable by repair/retrofit and maintenance of rooms and filling up infrastructure gaps like water, sewer/ septage, sanitation, road etc.
- States/UTs will select concessionaire through transparent bidding. Complexes will revert to ULB after 25 years to restart next cycle like earlier or run on their own.
- Special incentives like use permission, 50% additional FAR/FSI, concessional loan at priority sector lending rate, tax reliefs at par with affordable housing etc. will be offered to private/public entities to develop ARHCs on their own available vacant land for 25 years.

Background -

Ministry of Housing & Urban Affairs (MoHUA) has initiated an Affordable Rental Housing Complexes (ARHCs) for urban migrants/poor as a sub-scheme under Pradhan Mantri Awas Yojana (Urban). The scheme was announced by the Hon'ble Finance Minister on 14 May, 2020. This scheme seeks to fulfill the vision of '**AtmaNirbhar Bharat**'.

About Pradhan Mantri Awas Yojana (Urban) -

- It envisions Housing for All by 2022 and it subsumed Rajiv Awas Yojana and Rajiv Rinn Yojana.
- It seeks to address the housing requirement of urban poor including slum dwellers through following programmes -

- Central assistance to Urban Local Bodies (ULBs) and other implementing agencies for Slum rehabilitation with participation of private developers.
- Promotion of Affordable Housing for weaker section through Credit Linked Subsidy
- Affordable Housing in Partnership with Public & Private sectors
- Subsidy for beneficiary-led individual house construction
- It covers all 4041 statutory towns as per Census 2011 with focus on 500 Class I cities in three phases.
- Centre and state will be funding in the ratio of 75:25 and in case of North Eastern and special category States in the ratio of 90:10.
- **Beneficiaries** - Urban poor who does not own a pucca house, Economically Weaker Section (EWS) and Lower Income Groups (LIG – eligible only for credit linked subsidy scheme).
- States/UTs have flexibility to redefine the annual income criteria with the approval of Ministry.
- Under the mission, a beneficiary can avail of benefit of one component only.
- **HUDCO and NHB have been identified as Central Nodal Agencies (CNAs)** to channelize this subsidy to the lending institutions.
- **Credit Linked Subsidy** – It is an interest subsidy available to a loan amounts upto Rs 6 lakhs at the rate of 6.5% for tenure of 20 years or during tenure of loan whichever is lower.
- The houses will be allocated preferably in the name of Women in the family.

Note - The Credit Linked Subsidy Scheme (CLSS) for Middle Income Group (MIG) to be called CLSS for MIG I and MIG II, which was initially approved for implementation for the year 2017 has been extended up to March 2020. However, the government on May 14, 2020, announced the extension of the deadline for the affordable housing CLSS scheme for one year, that is, till March 2021.

The new category MIG, introduced recently, will further comprise of two slabs. The Middle Income Group (MIG) - I will comprise of households having an annual income between Rs 6,00,001 up to Rs 12,00,000.

And, the Middle Income Group (MIG) - II will comprise of households having an annual income between Rs.12,00,001 up to Rs.18,00,000. So, effectively anyone earning between Rs 6 lakh and Rs 18 lakh per annum can avail the benefits of subsidised loans provided other conditions are met.

Privately operated trains

Ministry of Railways has recently invited Request for Qualifications (RFQ) for private participation for operation of passenger train services over 109 Origin Destination (OD) pairs of routes through introduction of 151 modern Trains (Rakes).

Details -

- 151 Trains to be run by Private operators once the selection process is over, would be **over and above the already existing trains** .
- These trains are going to **run on the routes where there the demand for trains are already higher than the existing capacity**.
- The **driver and guard of the trains will Railway officials**. The safety clearance of trains will be done by Railways only .
- The 109 OD Pairs have been formed into 12 Clusters across the Indian Railway network. Each Train shall have a minimum of 16 coaches.
- The project would entail **private sector investment of about Rs 30,000 crore**. This is the first initiative of private investment for running Passenger Trains over Indian Railways network.
- **Majority of Trains to be manufactured in India** (Make in India). The private entity shall be responsible for financing, procuring, operation and maintenance of the trains.
- Trains shall be designed for **a maximum speed of 160 kmph**. There would be a substantial reduction in journey time. The running time taken by a train shall be comparable to or faster than the fastest train of Indian Railways operating in the respective route.

Objective -

The objective of this initiative is to **introduce modern technology** rolling stock with reduced maintenance, reduced transit time, boost job creation, provide enhanced safety, provide world class travel experience to passengers, and also reduce demand supply deficit in the passenger transportation sector.

Terms of agreement -

- The **Private Entity shall pay to Indian Railways** fixed haulage charges, energy charges as per actual consumption and a share in Gross Revenue determined through a transparent bidding process.
- The operation of the trains by the **private entity shall conform to the key performance indicators** like punctuality, reliability, upkeep of trains etc.

Selection of private entities -

- The private entities for undertaking the project would be selected through a **two-stage competitive bidding process** comprising of **Request for Qualification (RFQ)** and **Request for Proposal (RFP)**.
- RFQ process will be for **pre-qualification and shortlisting of the bidders will be based on their financial capacity**, who will be required to offer **share in the Gross Revenue at RFP stage (bid parameter)** for undertaking the project.

Aids to Navigation Bill 2020

Ministry of Shipping has issued the draft of 'Aids to Navigation Bill, 2020' for suggestions from stakeholders and general public.

Details -

- The draft bill is proposed to **replace the almost nine decades old Lighthouse Act, 1927**, to incorporate the global best practices, technological developments and India's International obligations in the field of Aids to Marine Navigation.
- This initiative is part of the **proactive approach adopted by the Ministry of Shipping by repealing archaic colonial laws** and replacing it with modern and contemporary needs of the maritime industry.
- The bill aims to **regulate state-of-the-art technologies of marine navigation** which was earlier used to tangle in statutory provisions of Lighthouse Act, 1927.

Provisions of the new bill -

- The draft bill provides for **empowering Directorate General of Lighthouses and Lightships (DGLL) with additional power and functions** such as Vessel Traffic Service, Wreck flagging, training and certification, implementation of other obligations under International Conventions, where India is a signatory. It also provides for **identification and development of heritage lighthouses**.
- The draft bill comprises a **new schedule of offences, along with commensurate penalties for obstructing and damaging the aids to navigation, and non-compliance with directives issued by the Central Government** and other bodies under the draft bill.
- With the advent of modern technologically improved aids to maritime navigation, the role of authorities regulating and operating maritime navigation has changed drastically. Therefore the new law encompasses a major shift from lighthouses to modern aids of navigation.

INTERNATIONAL RELATIONS

ECOSOC

Prime Minister Narendra Modi has delivered a keynote address virtually at this year's High-Level Segment of the United Nations Economic and Social Council (ECOSOC) session. The theme of the High-Level Segment of the ECOSOC this year is "Multilateralism after COVID19: What kind of UN do we need at the 75th anniversary".

About UN ECOSOC -

- The **UN Charter established ECOSOC in 1945** as one of the six main organs of the United Nations.
- The United Nations Economic and Social Council (ECOSOC) is responsible for **coordinating the economic, social, and related work of 15 UN specialised agencies**, their functional commissions and five regional commissions.
- It has 54 members. **The General Assembly selects 18 new members for ECOSOC each year** for the term of 3 years with a provision that **a retiring member can be re-elected**.
- It holds one seven-week session each year in July, and since 1998, it has also held an annual meeting in April with finance ministers heading key committees of the World Bank and the International Monetary Fund (IMF).
- ECOSOC serves as the **central forum for discussing international economic and social issues and formulating policy recommendations** addressed to member states and the United Nations system.
- A number of non-governmental organisations have been granted consultative status to the Council to participate in the work of the United Nations.
- **India is a member country (since 1st January 2018) and entered through the council in 2017 elections.**

India Ideas Summit

Prime Minister Narendra Modi has recently delivered the keynote address at the India Ideas Summit. The Summit is being hosted by the US-India Business Council (USIBC). The theme for this year's Summit is 'Building a Better Future'. Prime Minister congratulated USIBC on its 45th anniversary this year.

About India Ideas Summit -

- The virtual Summit featured high-level presence from Indian and US government **policymakers, state-level officials**, and thought leaders from business and society.
- Other key speakers at the Summit included Minister of External Affairs Dr. S Jaishankar and U.S. Secretary of State Mr. Mike Pompeo.
- The **India Ideas Summit** was held virtually by the **US Chamber of Commerce**.

About US-India Business Council (USIBC) -

- Formed in 1975, the US-India Business Council (USIBC) represents **top global companies** operating across the United States and India.
- USIBC serves as the **premier voice of industry**, creating connections between businesses and governments in both countries.
- USIBC is also part of US Chamber of Commerce. The Council's mission is to **promote trade relations** between India and the United States.
- Council supports pro-growth policies and increased **bilateral engagement**, focusing in two-way trade.
- It aims to create an **inclusive bilateral trade environment** between India and the United States by serving as the voice of industry, linking governments to businesses, and supporting long-term commercial partnerships. This will nurture the **spirit of entrepreneurship, create jobs**, and successfully contribute to the global economy.
- USIBC organises **roundtables and business summits** featuring heads of states from India and the United States, members of the U.S. Congress, members of the Indian Parliament, and notable influencers in the U.S.-India commercial corridor.

SCIENCE AND TECHNOLOGY

Raman Spectroscopy

Researchers have turned to Raman Spectroscopy to detect RNA viruses present in saliva samples. It has been reported that novel coronavirus is found in sufficient numbers in human saliva.

What is 'Raman Spectroscopy'?

Raman Spectroscopy is a **non-destructive chemical analysis technique** which provides detailed information about chemical structure, phase and polymorphy, crystallinity and molecular interactions. It is based upon the interaction of light with the chemical bonds within a material.

Raman Scattering -

- **Raman scattering** or the **Raman** effect is the inelastic **scattering of photons by matter**, meaning that there is an exchange of energy and a change in the light's direction.
- Typically this involves vibrational energy being gained by a molecule as incident photons from a visible laser are shifted to lower energy.
- Basically, it is a light scattering technique, whereby a molecule scatters incident light from a high intensity laser light source.
- Most of the scattered light is at the same wavelength (or colour) as the laser source and does not provide useful information – this is called **Rayleigh Scatter**. This scattering is responsible for the blue colour of the sky; it increases with the fourth power of the frequency and is more effective at short wavelengths.
- It is also possible for the incident photons to interact with the molecules in such a way that energy is either gained or lost so that the scattered photons are shifted in frequency. Such inelastic scattering is called **Raman Scatter**.

Uses -

Raman spectroscopy has found some application in **remote monitoring for pollutants**. For example, the scattering produced by a laser beam directed on the plume from an industrial smokestack can be used to monitor the effluent for levels of molecules which will produce recognisable Raman lines.

Pneumococcal Polysaccharide Conjugate Vaccine

Drug Controller General of India (DCGI) has given approval to the first fully indigenously developed Pneumococcal Polysaccharide Conjugate Vaccine. This vaccine has been developed by M/s. Serum Institute of India Pvt. Ltd, Pune. Serum Institute first obtained the approval of DCGI to conduct Phase I, Phase II and Phase III clinical trials of Pneumococcal Polysaccharide Conjugate Vaccine in India.

This vaccine is used for active immunisation against invasive disease and pneumonia caused by "Streptococcus pneumonia" in infants. The vaccine is administered in a intramuscular manner.

What are pneumococcal infections?

- The pneumococcal conjugate vaccine (PCV13) and the pneumococcal polysaccharide vaccine (PPSV23) protect against pneumococcal infections.
- The bacteria that cause these infections spread through person-to-person contact. They can lead to serious infections like pneumonia, blood infections, and bacterial meningitis.
- **Polysaccharide protein conjugate vaccines** are primarily used for the prevention of bacterial infections. Some pathogenic bacteria are covered with a **polysaccharide** capsule that primarily helps protect the bacteria from phagocytosis, or uptake of the bacteria by immune cells.

About Streptococcus Pneumonia -

- **Streptococcus pneumoniae** (pneumococcus) is a Gram-positive bacterium that is responsible for the majority of community-acquired **pneumonia**. It is a commensal organism in the human respiratory tract, meaning that it benefits from the human body, without harming it.
- However, in susceptible individuals with weaker immune systems, such as the elderly and young children, the bacterium may become pathogenic and spread to other locations to cause disease.

- Many people carry the bacteria in their nose and throat without becoming ill. **Streptococcus pneumoniae** is spread from person to person by inhaling or direct exposure to the bacteria droplets through coughing or sneezing from an infected person.
- The **contagious** period varies and may last for as long as the organism is present in the nose and throat. A person can no longer spread **S. pneumoniae** after taking the proper antibiotics for 1-2 days.

About Drug Controller General of India -

- DCGI is responsible for **approval of licences of specified categories of drugs** such as blood and blood products, IV fluids, vaccines and sera in India.
- It comes under the Ministry of Health & Family Welfare.

Kakrapar Atomic Power Plant

The Prime Minister, Shri Narendra Modi has congratulated Indian nuclear scientists for achieving criticality of Kakrapar Atomic Power Plant-3.

What does it mean to achieve criticality?

The 700 MW power plant in Gujarat achieved criticality, meaning **it reached the normal operating condition of a reactor**. It indicates that the plant is **now set to generate power**.

About Kakrapar Atomic Power Plant -

- The Kakrapar atomic power station is located **on the banks of the Tapti River**, approximately 80 km from the city of Surat, Gujarat.
- Developed and operated by **Nuclear Power Corporation of India (NPCIL)**, the two **pressurised heavy water reactors (PHWR)** are the **first set of indigenous-led plants to be developed in India**.
- The first two 220MW capacity KAPS-1 and KAPS-2 units were commissioned in May 1993 and September 1995 respectively.
- KAPP-3 and KAPP-4 were expected to begin operations in 2019 and 2020 respectively. However, KAPP-3 has started its operations now. Soon, KAPP-4 will follow the suit. Both KAPP-3 and KAPP-4 have a capacity of 700MW each. Construction of units 3 and 4 started in November 2010.
- The Kakrapar nuclear power plant was recognised as the best performing PHWR by CANDU Owners Group (COG) in 2003.

What is India's three-phase nuclear power programme?

The Indian nuclear power programme, **launched in 1954**, envisaged a three-stage development of nuclear power generation from the country's uranium and thorium resources.

1. The **first stage programme** consists of setting up of **pressurised heavy water reactors (PHWRs)**. PHWRs are **natural uranium-fuelled**, heavy water moderated and cooled. The uranium reserves in the country are adequate to support the first stage nuclear power programme of 10,000 MWe through PHWRs. In addition to generating power, PHWRs progressively make available **plutonium as a by-product**. The technologies for the reprocessing of plutonium from spent PHWR fuel and for fabrication of plutonium bearing fuels have been systematically established in India through research and development over the past several years.
2. The **second stage** of the nuclear power programme consists of **effective utilisation of plutonium in Fast Breeder Reactors (FBRs)** which will provide the key to full utilisation of the country's uranium resources and prepare the way for the long-term utilisation of the more abundant thorium reserves. **FBRs enable generation of more fresh fissile material than is consumed for power production**. With the deployment of FBRs, the depleted uranium and plutonium generated in the first stage will permit an additional power potential to the extent of 3,50,000 MWe.
3. During the later part of the second stage programme, it is proposed to **use thorium as blanket material in FBRs to generate U-233**, another fissile material for use in the **third stage programme** based on U-233 fuelled reactor systems.

For basic learning -

- **Stage-I:** envisages, construction of Natural Uranium, Heavy Water Moderated and Cooled Pressurised Heavy Water Reactors (PHWRs). Spent fuel from these reactors is reprocessed to obtain Plutonium.
- **Stage-II:** envisages, construction of Fast Breeder Reactors (FBRs) fuelled by Plutonium produced in stage-I. These reactors would also breed U-233 from Thorium.
- **Stage-III:** would comprise power reactors using U-233 / Thorium as fuel.

H-CNG

Ministry of Road Transport and Highways has notified draft notification seeking comments and suggestions from the public and all stakeholders for amendment to Central Motor Vehicles Rules 1979 for inclusion of Hydrogen enriched CNG as an automotive fuel.

What is Hydrogen-CNG?

- HCNG is a vehicle fuel which is a **blend of compressed natural gas and hydrogen**, typically 8-50% hydrogen by volume.
- Existing natural gas engines can be used with HCNG, although higher hydrogen blends require re-tuning of the engines for optimal performance. Studies indicate that **HCNG mixtures with 20- 30% hydrogen by volume are optimal** for vehicle performance and emissions reduction.
- Delhi has become India's first city to **launch hydrogen-enriched CNG (HCNG) buses in 2019**.

Advantages -

- **No retrofitting required** - It does not need any modification of the engine or retrofitting. Only some calibration is required thus allowing governments and agencies to promote the use of hydrogen to greater number of people at less cost. It is usable with the existing CNG infrastructure. It requires only small hydrogen storage and a column for the mixing of hydrogen with natural gas. Safety properties are similar to CNG.
- **Lower pollutant emissions** - Global HCNG testing to date has demonstrated the fuel's potential to reduce nitrous oxide (NOx), carbon dioxide (CO₂), carbon monoxide (approximately 70%) and hydrocarbon emissions (approximately 15%) vehicle emissions compared to traditional CNG. Hydrogen addition to natural gas can decrease engine's unburned hydrocarbons and speed up the combustion process.
- **Improves fuel economy** - It improves the engine efficiency, lowers fuel consumption upto 5 per cent as compared to a CNG bus.
- The thermal efficiency of both Natural gas and HCNG increases with increase in load which makes it an ideal fuel for high load applications and heavy-duty vehicles.

Issues involved -

- **Determining the most optimised hydrogen/compressed natural gas ratio-** If the hydrogen fraction increases above a certain limit, it will result in abnormal combustion such as pre-ignition, knock and backfire occur.
- **Ensure safe infrastructure-** Probably most evident challenge for wide-spread use of the new fuel is the current lack of infrastructure. Similar to other gaseous fuels, natural gas and hydrogen are both lighter than air, therefore if there is a leak it will quickly disperse into air with adequate ventilation.
- **Cost and continuous availability-** The cost of Hydrogen is higher than cost of Natural gas resulting in HCNG being costlier than CNG. Further, continuous availability of HCNG needs to be assured before embarking on its major use in IC engines.
- **Continued engine performance,** emissions and durability testing in variety of engine types and sizes need to be developed to increase consumer and manufacturer confidence.

International Thermonuclear Experimental Reactor

Prime Minister Narendra Modi has written a message to the scientific community of many nations on the historic occasion of the beginning of the ITER Assembly activities.

What is ITER Project?

- ITER is **international nuclear fusion research and engineering megaproject**, which will be the **world's largest magnetic confinement plasma physics experiment**. The goal of ITER is to demonstrate the scientific and technological **feasibility of fusion energy for peaceful use**.
- It is an experimental tokamak nuclear fusion reactor that is being built next to the **Cadarache** facility in Saint-Paul-lès-Durance, in Provence, southern France.
- The project is funded and run by seven member entities—**the European Union, India, Japan, China, Russia, South Korea and the United States**.
- Construction of the ITER Tokamak complex started in 2013 and the building costs were over US\$14 billion by June 2015.
- The EU, as host party for the ITER complex, is contributing about 45 per cent of the cost, with the other six parties contributing approximately 9 per cent each.

How does it work?

- Scientists have long sought to **mimic the process of nuclear fusion that occurs inside the Sun**, arguing that it could provide an almost **limitless source of cheap, safe and clean electricity**.
- Unlike in existing fission reactors, which split plutonium or uranium atoms, there is **no risk of an uncontrolled chain reaction** with fusion and it does not produce long-lived radioactive waste.
- The ITER aims to **use a strong electric current to trap plasma** inside a doughnut-shaped enclosure long enough for fusion to take place.
- Hydrogen plasma will be heated to 150 million degrees Celsius, ten times hotter than the core of the Sun, to enable the fusion reaction.
- The process happens in a doughnut-shaped reactor, called a **tokamak 1**, which is surrounded by giant magnets that confine and circulate the superheated, ionised plasma, away from the metal walls.
- The superconducting magnets must be cooled to -269°C (-398°F), as cold as interstellar space.

Contributions by India -

Apart from the financial contribution by Government of India, Indian scientists have made valuable contributions to the development and fabrication of the cryostat, the cooling system, the cryo-distribution system and several kilometres of cryolines.

What is 'nuclear fusion'?

- Nuclear fusion is the **process of making a single heavy nucleus** (part of an atom) **from two lighter nuclei**.
- The nucleus made by fusion is **heavier than either of the starting nuclei**. It releases a large amount of energy.
- **Fusion is what powers the Sun**. Atoms of Tritium and Deuterium (isotopes of hydrogen, Hydrogen-3 and Hydrogen-2, respectively) unite under extreme pressure and temperature to produce a neutron and a helium isotope. Along with this, an enormous amount of energy is released, which is several times the amount produced by fission.
- Scientists continue to work on controlling nuclear fusion in an effort to make a fusion reactor to produce electricity.
- While nuclear **fission** is the **division of one atom into two** (by neutron bombardment), the **fusion** is the **combination of two lighter atoms into a larger one** (at a very high temperature).

ENVIRONMENT

Rewa Solar Project

Prime Minister Narendra Modi has recently inaugurated 750MW Solar Project set up at Rewa, Madhya Pradesh.

Details about the project -

- This Project comprises of three solar generating units of 250 MW each located on a 500 hectare plot of land situated inside a Solar Park (total area 1500 hectare).
- The Solar Park was developed by the Rewa Ultra Mega Solar Limited (RUMSL), a **Joint Venture Company of Madhya Pradesh Urja Vikas Nigam Limited (MPUVN), and Solar Energy Corporation of India (SECI)**, a Central Public Sector Undertaking.
- Central Financial Assistance of Rs. 138 crore has been provided to RUMSL for development of the Park.
- After the Park had been developed, Mahindra Renewables Private Ltd., ACME Jaipur Solar Power Private Ltd., and Arinsun Clean Energy Private Ltd were selected by RUMSL through reverse auction for developing three solar generating units of 250 MW each inside the Solar Park.

Significance -

- The Rewa Solar Project was the first solar project in the country to break the grid parity barrier. Compared to prevailing solar project tariffs of approx. Rs. 4.50/unit in early 2017, the Rewa project achieved historic results: a first year tariff of Rs. 2.97/unit with a tariff escalation of Rs. 0.05/unit over 15 years and a levelised rate of Rs. 3.30/unit over the term of 25 years.
- This project will reduce carbon emission equivalent to approx. **15 lakh ton of CO2 per year**.
- The project has also received World Bank Group President's Award for innovation and excellence and was included in the Prime Minister's "A Book of Innovation: New Beginnings".
- The project is also the **first renewable energy project to supply to an institutional customer outside the State**, i.e. Delhi Metro, which will get 24% of energy from the project with remaining 76% being supplied to the State DISCOMs of Madhya Pradesh.

About Solar Energy Corporation of India -

- Solar Energy Corporation of India Ltd" (SECI) is a CPSU **under the administrative control of the Ministry of New and Renewable Energy (MNRE)**, set up on 20th Sept, 2011 **to facilitate the implementation of JNNSM** (Jawaharlal Nehru National Solar Mission) and achievement of targets set therein (revised target of achieving 100 GW solar capacity by 2022).
- It is the **only CPSU dedicated to the solar energy sector**. It was **originally incorporated as a section-25 (not for profit) company** under the Companies Act, 1956.
- However, through a Government of India decision, **the company has recently been converted into a Section-3 company under the Companies Act, 2013**. The mandate of the company has also been broadened to cover the entire renewable energy domain.

All India Tiger Estimation 2018

The fourth cycle of the All India Tiger Estimation 2018, results of which were declared to the nation on Global Tiger Day last year by Prime Minister Narendra Modi has entered the Guinness World Record for being the **world's largest camera trap wildlife survey**.

Details -

- India has fulfilled its resolve to double the tiger numbers four years before the target. The country now has an estimated 2967 tigers as per the latest census.
- With this number, **India is home to nearly 75% of the global tiger population** and has already fulfilled its resolve of doubling tiger numbers, made at St. Petersburg in 2010, much before the target year of 2022.
- The latest results of 2018 had shown that India now has an estimated 2967 tigers out of which 2461 individual tigers have been photo captured, a whopping 83 % of the tiger population, highlighting the comprehensive nature of the survey.

Background -

- The **All India Tiger Estimation done quadrennially** is steered by the **National Tiger Conservation Authority** with technical backstopping from the **Wildlife Institute of India** and **implemented by State Forest Departments and partners**.
- There is hardly any parallel of such a focused species oriented program like Project Tiger across the world, which started with 9 Tiger Reserves, with 50 tiger reserves currently.

About Project Tiger -

- Project Tiger, a **centrally sponsored scheme** was launched in 1973 with 9 tiger reserves (currently increased to 50 tiger reserves) with the following objectives -
 - To ensure maintenance of available population of Tigers in India for scientific, economic, aesthetic, cultural and ecological value.
 - To preserve, for all times, the areas of such biological importance as a national heritage for the benefit, education and enjoyment of the people.
- The tiger reserves are constituted on a **core/buffer strategy**. The core areas have the legal status of a national park or a sanctuary, whereas the buffer or peripheral areas are a mix of forest and non-forest land, managed as a multiple use area.
- It is an ongoing Centrally Sponsored Scheme of the Ministry of Environment, Forests and Climate Change providing **central assistance to the tiger States** for tiger conservation in designated tiger reserves.

About National Tiger Conservation Authority -

- The **National Tiger Conservation Authority (NTCA)** is a **statutory body** of the Ministry, with an overarching supervisory/coordination role, performing functions as provided in the **Wildlife (Protection) Act, 1972**.
- The NTCA was launched in 2005, following the recommendations of the Tiger Task Force.
- It was given statutory status by 2006 amendment of **Wildlife (Protection) Act, 1972**.

Climate Change over Indian Region

The first 'Assessment of Climate Change over Indian Region' was recently released by the Union Ministry of Earth Sciences. It warns of tropical cyclones, thunderstorms, heat waves, floods and droughts in India unless mitigation measures are adopted soon. The projections are for the decades leading to the end of the 21st century.

What are the findings of the report?

- **Temperature:** By the end of the 21st century, average temperature over India is projected to rise by 4.4°C, relative to the average temperature during 1976-2005.
- **Heatwaves:** In coming decades, the average duration of heatwaves during April-June is projected to double, and their frequency to rise by 3 to 4 times compared to 1976-2005.
- **Monsoon:** The coming decades are projected to witness a considerable rise in the mean, extreme and inter-annual variability of rainfall associated with monsoon.
- **Sea level:** In an extreme climate scenario, a risk of inundation looms over Andhra Pradesh and Ganga-Brahmaputra-Meghna delta basins. By 2030, some 340 million coastal residents of the North Indian Ocean and its islands would be exposed to coastal hazards.
- **Tropical cyclones:** Storms in the Arabian Sea are gaining more strength and the trend is projected to continue. The number of extremely severe cyclonic storms formed in the Arabian Sea has increased in the last 20 years.
- **Himalaya snow cover:** By the end of the century, the Hindukush Himalayas are projected to be warmer by 2.6-4.6°C.
- **Floods:** Flood risks are higher over the east coast, West Bengal, eastern Uttar Pradesh, Gujarat, Konkan and cities like Mumbai, Chennai and Kolkata. The Himalayan flood basins are projected to greater floods, due to the faster glacial and snow melting.
- **Droughts:** Eastern India could face two more droughts per decade compared to what was experienced during 1976-2005, while the Southern Peninsula is projected to experience one or two droughts fewer.

ART AND CULTURE

Dharma Chakra Day/Asadha Poornima

The **International Buddhist Confederation (IBC)**, under the aegis of **Ministry of Culture**, Government of India, has celebrated Asadha Poornima on July 4, 2020, as **Dharma Chakra Day**.

Put together by the International Buddhist Confederation (IBC), the event will see monks from countries such as Indonesia, Jamaica, Japan, Laos, Malaysia, Mongolia, Myanmar, Nepal, Russia, Singapore, South Korea, Sri Lanka, Taiwan, Thailand, Uganda, UK, US and Vietnam.

About Dharma Chakra Day -

- Asadha Poornima falls on the **first full moon day** of the month of **Asadha** as per Indian sun calendar.
- This day commemorates **Buddha's First Sermon to his first five ascetic disciples** at the Deer Park, Rsiapatana in the present day Sarnath near Varanasi, UP.
- The day is also celebrated by Buddhists all over the world as the day of Dharma Chakra Parvattana or "**Turning of the Wheel of Dharma**".
- This day is also aptly observed as Guru Poornima by both Buddhists and Hindus as a day to mark reverence to their Gurus.

About Guru Poornima -

- According to the Hindu calendar, Guru Purnima generally falls on a **full-moon day** in the **Hindu month of Ashadh**.
- It is dedicated to **Maharshi Veda Vyasa**, the sage who is believed to have edited the sacred Hindu text, the Vedas and created the 18 Puranas, Mahabharata and the Srimad Bhagavatam.
- For Buddhists, the **festival marks the first sermon of Lord Buddha**, which is said to have been delivered at Sarnath, Uttar Pradesh, on this very day.
- It is also believed to mark the **onset of monsoons**.

Swami Vivekananda

Union Home Minister Shri Amit Shah paid tributes to Swami Vivekananda, a patriotic saint, a great thinker and an exemplary orator who not only reinforced the spirit of nationalism in India but also enriched the whole world with the ethos of Indian culture.

About Swami Vivekananda -

- Swami Vivekananda was born Narendra Nath Datta, on 12th January, 1863. He was **a monk and chief disciple of Ramakrishna Paramhansa**.
- He introduced **Indian philosophies of Vedanta and Yoga** to the Western world and is credited with raising interfaith awareness, bringing Hinduism to the world stage during the late 19th century.
- He established **Ramakrishna Mission in 1887**, named after his Guru Swami Ramakrishna Paramhansa. The institution did extensive educational and philanthropic work in India.
- He also represented India in the **first Parliament of Religion held in Chicago (U.S.) in 1893**.

Philosophy of Vedanta -

- It was **based on Upanishads** and their interpretation.
- Its aim was to enquire about '**Brahman**' (**ultimate reality**) which was the central concept of Upanishads.
- It saw **Veda as the ultimate source of information** and whose authority could not be questioned.
- It emphasised on path of knowledge (**jnana**) as opposed to that of sacrifice (**karma**).
- Ultimate aim of knowledge was '**Moksha**' i.e. liberation from '**sansara**'.

Swami Vivekananda -

- He is initially a western educated **Brahmo Samajist** in his young age. But the Brahmo movement failed to provide solutions to his spiritual quests.
- He became the disciple of Sri Ramakrishna whose Bhakti appealed to him more than the high intellectualism of Brahmos.
- He is a proponent of **Practical Vedanta** which he considered as a religion most suited to the needs of modern man. He believed in the **essential unity** of man and **god (Advaita)**.

- He believed that it was only in **selflessness** and in consciously trying to serve the larger humanity that one truly gained a perspective on religion and God. This thought laid emphasis on the **Karma Marga of Bhagavad-Gita**.
- He reoriented the traditional Advaita of **world renunciation** to a new **world affirmation ideal**. He searched for **salvation in selflessness**.
- Many rivers flow by many ways but they fall into the same sea. This is the basis of **Swamiji's religious universalism and eclecticism**.

Social reformer -

- In the first place **he did not think man's thought could truly turn to God unless his basic social needs had been reasonably met**. He also considered it **a sin to teach spirituality to a starving man**.
- God is everywhere but he is most **manifest in man**. So serve man as God. That is as good as worshipping God. He joined together the ideals of **one's own salvation and welfare of the world**.
- There is infinite moral and spiritual potential in man. To develop that potential is man's foremost duty in life. He declared **education to be the manifestation of divinity inherent to man**.
- He was a **critic of** - Idolatry, Polytheism, Religious superstitions, Exploitation by priests in the religious sphere.
- He envisaged an **equal role to women in society and promoted women emancipation** and empowerment.
- He wanted a new man to emerge from the confluence of the **spiritualism of the east and materialism of west**.

Contribution to nationalism -

- Swami Vivekananda contributed enormously to the strengthening of **Hindu self-pride and cultural nationalism**.
- Vedanta was all about man-making. **Manliness and activism** are the gospels of swamiji for the resurgence of India.
- Young men and women, in his vision, were to be the building blocks of a resurgent, **Vedantic India**.
- He gave the call of **self-sufficiency and self-help** which he considered necessary for national regeneration.
- He inspired a whole **generation of patriots and revolutionaries**. He is considered a patron prophet by the revolutionaries of Bengal.
- He declared that India needs **muscles of iron and nerves of steel** to retain its lost glory and pride.

Mongolian Kanjur

The Ministry of Culture has taken up the project of **reprinting of 108 volumes of Mongolian Kanjur** under the National Mission for Manuscripts (NMM).

The first set of five volumes of Mongolian Kanjur published under the NMM was presented to the President of India Shri Ram Nath Kovind on the occasion of Guru Purnima, also known as Dharma Chakra Day, on 4th July 2020.

Details about Mongolian Kanjur -

- Mongolian Kanjur, the Buddhist canonical text in 108 volumes is considered to be the most important religious text in Mongolia.
- In the Mongolian language '**Kanjur**' means '**Concise Orders**'- the **words of Lord Buddha** in particular.
- It is held in high esteem by the Mongolian Buddhists and **they worship the Kanjur at temples and recite the lines of Kanjur in daily life** as a sacred ritual.
- The Kanjur are **kept almost in every monastery in Mongolia**.
- Mongolian Kanjur has been **translated from Tibetan**.
- The language of the Kanjur is **Classical Mongolian**.

- The Mongolian Kanjur is a source of providing a cultural identity to Mongolia.

About National Mission for Manuscripts (NMM) -

- The National Mission for Manuscripts was **launched in February 2003** by the Government of India, under the Ministry of Tourism and Culture, with the **mandate of documenting, conserving and disseminating the knowledge preserved in the manuscripts.**
- One of the objectives of the mission is to **publish rare and unpublished manuscripts** so that the knowledge enshrined in them is spread to researchers, scholars and general public at large.
- Under this scheme, reprinting of 108 volumes of Mongolian Kanjur has been taken up by the Mission. It is expected that all the volumes will be published by March, 2022.

Impact on India-Mongolia relations -

- Historical interaction between India and Mongolia goes back centuries. Buddhism was carried to Mongolia by Indian cultural and religious ambassadors during the early Christian era.
- As a result, today, Buddhists form the single largest religious denomination in Mongolia.
- India established formal diplomatic relations with Mongolia in 1955. Since then, the overwhelming relationship between both the countries has now reached a new height.
- Now, the publication of Mongolian Kanjur by the Government of India for the Government of Mongolia will act as a symbol of cultural symphony between India and Mongolia and will contribute to furtherance of bilateral relations during the coming years.

SOCIAL ISSUES

Maternal Mortality Rate

Union Minister of Health and Family Welfare Dr. Harsh Vardhan has said that the Maternal Mortality Ratio (MMR) of India has declined by 9 points in one year as per the Special Bulletin on MMR released by the Registrar General of India.

What is 'Maternal Mortality Rate'?

As per the World Health Organization, maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy, from any cause related to or aggravated by the pregnancy or its management.

Key statistics -

- The ratio has declined from 122 in 2015-17 to 113 in 2016-18 (**7.4 % decline**).
- The country has been witnessing a progressive reduction in MMR from 167 in 2011-2013, 130 in 2014-2016, 122 in 2015-17, and to 113 in 2016-18.
- With this persistent decline, **India is on track to achieving the SDG 3 of 70/ lakh live births by 2030 and National Health Policy (NHP) target of 100/ lakh live births by 2020.**
- The number of states which have achieved the SDG target has now risen from 3 to 5 viz. Kerala (43), Maharashtra (46) Tamil Nadu (60), Telangana (63) and Andhra Pradesh (65).
- There are eleven states that have achieved the target of MMR set by the NHP which includes the above 5 and the states of Jharkhand (71), Gujarat (75), Haryana (91), Karnataka (92), West Bengal (98) and Uttarakhand (99).
- Three states (Punjab (129), Bihar (149), Odisha (150)) have MMR in between 100-150, while for 5 states namely, Chhattisgarh (159), Rajasthan (164), Madhya Pradesh (173), Uttar Pradesh (197) and Assam (215), MMR is above 150.

How India has achieved this feat?

- This success can be attributed to the intensive endeavour of the government in achieving impressive gains in institutional deliveries as well as focusing on quality and coverage of services under NHM through various schemes such as Janani Shishu Suraksha Karyakram, Janani Suraksha Yojana, and newer initiatives like LaQshya and Pradhan Mantri Surakshit Matritva Abhiyan.
- Government of India also envisages rolling out the overarching SUMAN initiative including the midwifery initiative, assuring delivery of maternal and newborn healthcare services

encompassing wider access to free and quality services, zero tolerance for denial of services along with respectful maternity care.

About Registrar General of India -

- It is under the **Ministry of Home Affairs**.
- Apart from conducting the **Population Census** and monitoring the implementation of the **Registration of Births and Deaths** in the country, it has been giving **estimates on fertility and mortality** using the **Sample Registration System (SRS)**.
- SRS is the **largest demographic sample survey** in the country that among other indicators provide direct estimates of maternal mortality through a nationally representative sample.

Lepchas

Prime Minister Narendra Modi has condoled the passing away of Folk musician and Padma Shri awardee Sonam Tshering Lepcha who passed away at Kalimpong recently due to old age ailments.

About Lepcha tribe -

- The **Lepcha** are also called the **Rongkup** meaning the children of God and the Rong.
- Lepchas are among the indigenous peoples of **Sikkim** and number between 30,000 and 50,000.
- Many Lepcha are also found in **western and southwestern Bhutan, Tibet, Darjeeling, the Mechi Zone of eastern Nepal, and in the hills of West Bengal**.
- The Lepcha have their **own language**, also called Lepcha. It belongs to the **Bodish-Himalayish** group of **Tibeto-Burman languages**. The Lepcha write their language in their **own script**, called **Róng or Lepcha script**, which is derived from the **Tibetan script**.
- **Religion** - Most Lepchas are **Buddhist**, a religion brought by the Bhutias from the north, although a large number of Lepchas have today adopted **Christianity**. According to the Nepal Census of 2001, out of the 3,660 Lepcha in Nepal, 88.80% were Buddhists and 7.62% were Hindus. Many Lepchas in the Hills of Sikkim, Darjeeling and Kalimpong are Christians.
- **Clothing** - The traditional clothing for Lepcha women is the ankle-length **dumbun**, also called *dumdyám or gādā* ("female dress"). It is one large piece of smooth cotton or silk, usually of a solid colour. The traditional Lepcha clothing for men is the **dumprá** ("male dress"). It is a multicoloured, hand-woven cloth pinned at one shoulder and held in place by a waistband, usually worn over a white shirt and trousers.
- **Occupation** - The Lepchas are mostly **agriculturists**. They grow oranges, rice, cardamoms, and other foods.
- **Art and Craft** - The Lepchas are known for their **unique weaving and basketry skills**. They also have a rich tradition of dances, songs, and folktales. One popular instrument used by the Lepchas is a four-string lute that is played with a bow.
- **Marriage** - The Lepchas are largely an endogamous community. They trace their descent patrilineally. The marriage is negotiated between the families of the bride and the groom.

SECURITY

NATGRID

The National Intelligence Grid (NATGRID) has signed a memorandum of understanding with the National Crime Records Bureau (NCRB) to access the centralised online database on FIRs and stolen vehicles.

Details -

- At present, security agencies directly contact an airline or a telephone company if they are on a suspect's trail. The data is shared through international servers. The NATGRID will ensure that such information is shared through a secure platform.
- The MoU between the National Intelligence Grid (NATGRID) and the National Crime Records Bureau (NCRB) to access the centralised online database on FIRs and stolen vehicles, will

enable the NATGRID get information about details of a suspect as mentioned in the FIR such as his/her father's name, telephone number and other details

About NATGRID -

- The office of NATGRID is attached to the **Ministry of Home Affairs**.
- Initiated at a budget of Rs 2,800 crores, it is the integrated intelligence framework connecting the databases of security agencies of the Government of India to gather inclusive patterns of intelligence that can be accessed by intelligence agencies.
- It is a counter terrorism measure involved in collecting and collating a host of information from government databases including credit card transactions, tax details, bank account details, visa, immigration records and itineraries of air and rail travel.
- The combined data shall be accessible by the central agencies namely the Directorate General of Central Excise Intelligence, Central Board of Excise and Customs, Narcotics Control Bureau, Enforcement Directorate, Directorate of Revenue Intelligence, Central Board of Direct Taxes, Financial intelligence unit, Central Bureau of Investigation, the Intelligence Bureau and the Research and Analysis Wing.

Significance -

- Unlike the central organisations like NCTC and the NIA, the NATGRID is necessarily a tool that enables security agencies to detect and collect relevant information on terror suspects from database pooled from various different organisations and services in the country. It will help in the identification, capture, and prosecution of terrorists and help preempt terrorist plots.
- NATGRID also helps the police and the Intelligence Bureau keep a tab on persons with suspicious backgrounds. The police would have access to all the data related to that person and any movement by this person would also be tracked with the help of the database. A pattern search and recognition system helps in reducing human rights violations while extracting information.

Induction of Rafale in Indian Air Force

Recently, five Rafale jets were inducted by the Indian Air Force at the Air Force Station at Ambala. The jets have been added to the Number 17 Golden Arrows squadron of the Indian Air Force. It will take the IAF's squadron strength to 31. When all the 36 Rafale jets are delivered by 2022, it will take it to 32 squadrons, still well below the 42 squadrons of the sanctioned strength. The state-of-the-art 4.5 Generation Rafale jet can reach almost double the speed of sound, with a top speed of 1.8 Mach. With its multi-role capabilities, including electronic warfare, air defence, ground support and in-depth strikes, the Rafale lends air superiority to the Indian Air Force.

How is it significant for India?

- While China's J20 Chengdu jets are called fifth generation combat jets, compared to 4.5 generation Rafale, the J20 have no actual combat experience.
- Whereas the Rafale is combat proven, having been used by the French Air Force for its missions in Afghanistan, Libya and Mali. It has also been used for missions in Central African Republic, Iraq and Syria. Rafale can also carry more fuel and weapons than the J20.
- Each aircraft has 14 storage stations for weapons. The jets come with one of the most advanced Meteor air-to-air missiles. The 190-kg missile has a Beyond Visual Range (BVR) of over 100 km, traveling at a top speed of Mach 4. The F16 jets, used by Pakistan, carry the AMRAAM missile, which has a BVR of 75 km. Rafale can also outperform F16 in dogfights.
- The Rafale jets also come with SCALP, the air-to-ground cruise missile with a range over 300 km. It is a long-range deep strike missile.
- The MICA air-to-air missile on Rafale is for both, close-quarter dogfights, and for BVR. At the last-minute, India has also asked for HAMMER (Highly Agile and Manoeuvrable Munition Extended Range), which is an air-to-ground precision guided missile produced by French conglomerate Safran, and can be used against bunker-type hardened targets within the range of 70 km.

About Rafale -

- Rafale (built by Dassault Aviation of France) can attain a **maximum speed of Mach 1.8/750 kt** (2,222.6 km per hour) and can climb up to 50,000 ft.

- Though Rafale can fly up to a range of 3,700 km, it can be **refuelled mid-air**.
- The 15.27 metre long aircraft has **wing length of 10.8 metres each**.
- While Sukhoi 30 MKI can carry ammunition up to 8,000 kg, Rafale can **easily carry bombs up to 9,500 kg**.
- Rafale can carry out all combat aviation missions, including air defence, close air support, in-depth strikes, reconnaissance, anti-ship strikes and nuclear deterrence.
- Its '**delta wings**' are extremely stable and have **supersonic speed**.
- Rafale's **cannon can release over 2,500 rounds in one minute**.
- The aircraft's **advanced engine** is capable of allowing the **throttle to shift from combat to idle power in less than three seconds**.
- It can **jam enemy radars, detect targets anywhere including sea, ground and air**.
- Other superior capabilities include close air support, dynamic targeting, air-to-ground precision strike, anti-ship attack capability and buddy-buddy refuelling.
- The advanced Rafale aircraft **can carry a nuclear weapon, and deploy long range air-to-air missiles, laser-guided bombs with different warheads and non-guided classic bombs**.

