CURRENT AFFAIRS WEEKLY

WEEK - 3 JULY, 2019

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— Disclaimer —

The current affairs articles are segregated from prelims and mains perspective, such separation is maintained in terms of structure of articles. Mains articles have more focus on analysis and prelims articles have more focus on facts.

However, this doesn't mean that Mains articles don't cover facts and PT articles can't have analysis. You are suggested to read all of them for all stages of examination.

CURRENT AFFAIRS ANALYST
WEEK-3 (JULY, 2019)

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SECTION: A
(MAINS)

CURRENT AFFAIRS

DOUBLING FARMERS' INCOME

CONTEXT

- Centre has constituted an Empowered Body for implementation and monitoring of the recommendations of the Committee on Doubling Farmer's Income.

BACKGROUND

- Agriculture and allied sector provides livelihood to 54.6% of the population of India (census 2011) and it contributes 14.4% to the country's Gross Value Added (2018-19) as per **Economic Survey 2019**. India ranks among the top countries in the world in production of a number of crops including rice, wheat, sugarcane, fruits and vegetables. Farmers are, and will remain the drivers of Agricultural sector. Since the development of Farm mechanisation in India is still below the mark due to several factors like small land holdings, equipment cost and poor credit availability, the role of farmer in agriculture holds crucial importance and it is our imperative to ensure that farmers find Agriculture as a profitable economic activity.

- In this backdrop, **National Commission for Farmers** was constituted in **2004**, chaired by **Prof. M. S. Swaminathan**, to suggest methods for faster and more inclusive growth for farmers. Then, the Government of India in 2016 constituted an expert committee headed by **Ashok Dalwai** to look into the entire agriculture ecosystem in the country to suggest ways and means to reform it so that **farmers' income can be doubled by 2022**. The Committee submitted its final report to the Government in September 2018. Now, the government is in the process of setting up a panel to monitor the implementation of the recommendation of the Doubling Farmers' Income (DFI) committee.

Current Status of Farmers' Income

- The estimates for farmers' income are **not published by CSO**. The absence of adequate information makes it difficult to analyse the growth trends in farmer's income.

- According to NSSO survey, for the year 2012-13, the average annual income for a farm household from farm as well as non-farm source was Rs.77,112.

- A study by Chand et al in 2015 reveals that it took **22 years** (1993-94 and 2015-16) to double the farmers' real income.

- More than 20% of the farmers in India are Below Poverty Line.

Major Reasons behind farmer Distress in India

- **Small land holdings**: As per **Economic Survey 2019**, the pattern of agricultural holdings reflects pre-dominance (85 per cent) of small and marginal farmers in agriculture sector. Marginal and small land holdings face a number of issues, such as problems with using mechanisation and irrigation techniques. Also, farmers cultivating smaller land holdings lands do not have formal lease agreements because of which they become ineligible for formal credit.

- **Insurance**: Only about 35 per cent of farmers are covered under the Pradhan Mantri Fasal Beema Yojana. Moreover, due to inadequate and delayed claim payment, high premium rates, and poor execution, the scheme witnesses a drop of about 17% in the enrolled farmers in 2017-18.

- **Irrigation**: As 60% of agriculture in India is rain-fed, so timely arrival, consistency, and sufficiency of monsoon rains is most essential. But the high variability of S-W Monsoon rain in India causes a lot of hardship to the farmers and puts an adverse impact on the economy. For example, due to lack rain, farmers have to rely more on irrigation, for which they need diesel. This further increases our oil imports and hence increases our current account deficit.

- **Credit**: The access to timely credit is a critical determinant of profitability of agriculture. The regional distribution of agricultural credit in India is highly skewed. For example, the share of North Eastern States has been less than one per cent in total agricultural credit disbursement. Moreover, the informal source of credit constitutes 40% of loans. The interest demanded by them is very high and they eventually end up in losing their land. As per **Union Budget 2019**, only 50% of the total agricultural credit disbursedwent to SMFs.

- **Lack of knowledge among Farmers regarding use of fertilizers**: An imbalanced use of fertilizers lead to a loss of fertility in the soil over a period of time, affecting productivity. While the recommended ratio of use of the NPK fertilizers is 4:2:1, this ratio in India is currently at 6.7:2.4:1

- **Procurement**: Only about 1/3rd the total production of the food grains are procured due to long distances to the procurement centres, increasing cost of transportation for farmers and irregular hours of the procurement centres. In such situations, the farmers do not have any option but to sell their produce to middlemen with very little or no profit at all.

- **Poor Mechanisation:** The use of agricultural machinery in agriculture enables agricultural

labour to be used in other activities. But, the overall level of mechanisation in India is still less than 50%, as compared to 90% in developed countries.

⊚ **Lack of Storage Facilities**: A robust storage infrastructure is required to minimise any losses due to adverse weather conditions or in the process of transportation.

⊚ **Issues with APMC**: APMC mandis currently levy a market fee on farmers which makes it expensive for farmers to sell at APMC mandis. In transporting the produce, several intermediaries are paid a certain proportion of the price, as commissions. Thus the market price which the farmer receives for his produce is significantly lower than the price at which his produce is sold to the retailer.

Key Information about Doubling Farmer Income Initiative

● The reference year for farmer income is 2015-16 and target year is 2022-2023.

● The aim is to double the Real Income of farmer and not the nominal income.

● According to NITI Aayog, farmers' income in 2015-16 was Rs. 44027 in real terms.

● In order t o achieve the aim, an annual growth of 10.41% is required in farmers' income.

Impact

⊚ **Economic**

➤ **Demand for Loan Waivers**: Till now, at least 11 States have announced schemes to waive outstanding farm loans. Loan Waivers adversely affect the repayment discipline of farmers, leading to a rise in defaults in future.

➤ **Widening Current Account Deficit**: A fall in agricultural output followed by a stagnant output from other sectors of the economy will further widen the CAD.

➤ **Increased NPAs:** Due to lack of irrigation facilities and lack of institutional credit, farmers fall in the debt trap and are not able to repay the loan instalments. As a consequence, banks tend to reduce the flow of credit to the small and marginal farmers.

➤ **Hit on other Sectors:** A reduced output from agricultural sector will have a direct bearing on the output of other important sectors of the economy. For example Food Processing Sector is directly dependent on Agriculture output.

⊚ **Social**

➤ **Farmer Suicides**: India has witnessed a sharp rise in the number of farmer's suicides during 1995 to 2004. Due to this, the financial burden on other family members increase and they fall below the poverty line.

➤ **Demographic Dividend**: More and more young cultivators are leaving farming as a profession because it is not profitable for them. In a scenario, where unemployment rate is at an all time high, it will be difficult to absorb these young cultivators in other jobs.

➤ **Food Insecurity**: India has been one of the worst performers in the Global Hunger Index. Due to large scale wastage of food grains due to lack of storage infrastructure, India's food security further falls into threat.

⊚ **Environmental**

➤ **Excessive groundwater usage**: In India, according to the Asian Water Development Outlook, 2016, almost 89 percent of groundwater extracted is for irrigation. As per this trend, by 2050, India will be in the global hot spot for 'water insecurity'.

➤ **Water Pollution**: Water pollution from agriculture has a direct negative impacts on human health. Aquatic ecosystems are also affected by agricultural pollution; for example, eutrophication caused by the accumulation of nutrients in lakes and coastal waters

➤ **Climate Change**: Agriculture is directly responsible for 14 per cent of total greenhouse gas emissions, and broader rural land use decisions have an even larger impact.

Initiatives

⊚ **Improving Productivity:** Due to stagnancy in quantum of agricultural land, it is imperative to increase productivity over the same amount of land.

➤ **Pradhan Mantri Krishi Sinchai Yojana** (PMKSY) provides for more crop, per drop.

➤ **Soil Heath Card** scheme aims at promoting soil test based and balanced use of fertilisers to enable farmers to realise higher yields at lower cost.

⊚ **Improving Total Factor Productivity:** TFP is an important source of output growth which directly contributes into the cost saving and thus increase the income. TFP growth represents the effect of technological change, skill, infrastructure etc.

➤ **National Agriculture Market (e-NAM)** aims to form a unified national market for agricultural products by making a network for the markets related to the existing Agricultural Product Marketing Committee (APMC).

➤ **Direct Benefit Transfer**: The NITI Aayog has suggested that all subsidies for agriculture, including fertiliser, electricity, crop insurance, irrigation and interest subvention be replaced by income transfer because it eliminates the leakages of resources in the system.

⊚ **Diversification of Crops**: When farmers go for single crop type they are exposed to high risks in the event of unforeseen climate events, such as

emergence of pests and the sudden onset of frost or drought.

➤ **Crop Diversification Programme (CDP)** being implemented which aims to diversify area from water guzzling crop like paddy to alternate crops like maize, pulses, oilseeds, cotton & agro-forestry plantation.

◉ **Financial Assistance:** There are several initiatives taken up by the government like:

➤ The **Union Budget 2019-20** has made the highest ever allocation to Ministry of Agriculture and Farmers' Welfare: Rs 1,30,485 crore, a 140 per cent jump over the '18-19 budget estimate of Rs 57,600 crore.

➤ **Pradhan Mantri Fasal Bima Yojna** has been launched to provide relief to the farmers inflicted with the loss of crop damage.

➤ **Kisan Credit Card Scheme** aims to provide direct benefit to farmers and ease the pressure on them.

➤ **Micro Irrigation Fund** created with NABARD has been approved for encouraging public and private investments.

➤ **Implementation of Swaminathan Report** - Recently, the Government has increased the MSP for all Kharif and Rabi crops and other commercial crops for the season 2018-19 with a return of at least 50 percent over cost of production.

➤ The Government has decided to implement a **new Central Sector Scheme** for providing old age pension of Rs.3000/- to the eligible small and marginal farmers as they have minimal or no savings.

➤ **PM KISAN** - This central sector scheme aims to supplement the financial needs of the SMFs in procuring various inputs to ensure proper crop health and appropriate yields, commensurate with the anticipated farm income at the end of the each crop cycle.

◉ **Other Initiatives:**

➤ The Government has been promoting organic farming in the country through the schemes such as Paramparagat Krishi Vikas Yojana (PKVY) and Rashtriya Krishi Vikas Yojana (RKVY).

➤ Coffee Board has launched **block-chain based coffee e-marketplace**. It will to help integrate the farmers with markets in a transparent manner.

➤ NITI Aayog launched in 2016 an index to rank States and UTs based on implementation of seven provisions proposed under model APMC Act.

➤ The **Mega Food Parks scheme** aims to create a mechanism of linking agricultural production to the markets, by involving farmers, processors and retailers together in a cluster-based approach.

Recommendations

◉ **NITI Aayog's Model Land Leasing Act** must be adopted by all the states and UTs in a time bound manner. It will bring the futile land into much needed use for operational efficiency.

◉ Apart from food and nutrition security, Agriculture should also be mandated **to generate resources as raw materials** to feed and support industrial enterprises. Such incorporation will provide greater elasticity to the markets now circumscribed by consumption as food and fodder.

◉ **Public investment** in agriculture must be raised to 4% of the GDP, which is currently only 2.76%

◉ **Modern machinery** such as laser land leveller, direct seeded rice, zero tillage, raised bed plantation and ridge plantation allow high efficient farming

◉ The **insurance sector** should design a simple natural catastrophe product with affordable premium and simple claim payment methodology

◉ **Micro-irrigation systems (MI)** is one of the possible ways to improve water use efficiency, it can be seen that the States with penetration of MI systems and improved adoption of micro irrigation systems have almost 40 to 50 per cent savings in energy and fertiliser consumption

◉ There is need to promote use of environment friendly automated farm machinery tools suited to small scale operations. The **Custom Hiring Centres (CHCs)** can be set up to promote use of high-tech machinery for the mechanization of small and marginal farm holding.

◉ The improvement in fertilizer use efficiency requires farmers' knowledge regarding the right product, dosage, time and method of application. Some of the suggested measures are the use of optimal dose based .

◉ A combination of enhancing rural infrastructure to improve connectivity, Information, Communication Technology (ICT) to provide timely information about prices, aggregation and storage facilities can help small and marginal farmers in overcoming the marketing bottlenecks.

📰 Practice Question

◉ **Discuss the major reasons behind the rising number of farmer suicides in India and what is the government's strategy to address those issues?**

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WHAT CAN WE DO TO DOUBLE FARMERS' INCOME?

CONTEXT

GoI, in 2016 constituted an expert committee headed by **Ashok Dalwai** to look into the entire agriculture ecosystem in the country to suggest ways and means to reform it so that **farmers' income can be doubled by 2022**.

The Committee submitted its final report to the Government in September 2018. Now, the government is in the process of setting up a panel to monitor the implementation of the recommendation of the Doubling Farmers' Income (DFI) committee.

How much do farm households earn?
(₹ per month in nominal terms)

6,498	8,058
2012-13	2015-16

TARGET- Double real incomes between 2015-16 and 2022-23
Source: Report of committee on doubling farmer incomes

Challenges: Low growth and falling prices
Average farm growth rate halved in the first four years of the NDA govt compared to preceeding four years

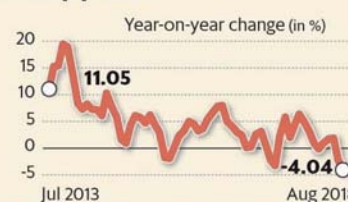**Agriculture growth rate** (annual average, in %)

2011-12 to 2014-15	5.2
2014-15 to 2017-18	2.5

Source: CSO estimates

Low wholesale crop prices
Wholesale Price Index (WPI) covering food articles and its subgroups

Base year: 2011-12

Year-on-year change (in %)
11.05
-4.04
Jul 2013 — Aug 2018

Source: Office of the economic adviser, ministry of commerce

Maximising yield
There should be a mechanism for continuous enhancement of yield levels through R&D and delivering the best practices to farmers

Crop selection
Crop's price depends on various factors like demand, supply, inventory, etc → in absence of this information, farmers end up choosing low return crops many a times → A **National Crop Planning Bureau** could be set up to bridge this gap

Enhancing Agri-Infrastructure
Practices of procurement, storage and movement of wheat and rice could be extended to more crops

Maximisation of revenue

Collective farming
individual farmers have less bargaining power, facilities, credit access, etc → These could be achieved by way of collective farming and forming Farmers' Producers Organisations

Better logistics
Mechanised farm practices, ware houses, economical transportation by pooling, etc

Broadly, there are 3 areas to work on in endeavouring to double farmers' income

Financial literacy
Better financial literacy could lead to collective investments like mutual funds and access to credit

Minimising of costs

Alternate sources of revenue

Crop insurance
should be enhanced to cover pest attacks, quality deterioration, etc

Sustainable irrigation
Solar irrigation pumps, micro irrigation, etc

Job insurance
non farm income from jobs like mechanic, salesman, etc could be formalised and covered by social security programs

Dairy and livestock
Govt could establish formal breeding centres and source best technologies for better productivity for farmers

Minimising input costs
These could be minimised by lower / zero taxes on all participants in the value chain of manufacturing the inputs

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Measures taken so far

Feb 2016: PM Modi announces target to double farmer incomes by 2022 at a farmer's rally in Uttar Pradesh

Apr 2017: Centre pushes states to adopt a new agriculture and livestock marketing Act

May 2018: Centre finalizes Model Contract Farming Act

Sep 2018: Centre launches new MS- based procurement scheme PM-AASHA for pulses and oilseeds

Apr 2016: Centre sets up an interministerial committee to recommend a strategy to raise farm incomes
Centre lauches e-NAM as a pan India digital market for farm produce

Jun 2016: New crop insurance scheme, Pradhan Mantri Fasal Bima Yojana rolled out

Feb 2018: Budget promises to fix MSP at 50% plus costs and introduce measures to ensure MSP-based purchases

Jul 2018: MSPs for kharif crops increased to ensure 50% returns over cost to farmers

WASTE MANAGEMENT

CONTEXT

● Following a plea alleging unscientific handling of fly ash generated by a unit of NTPC, the National Green Tribunal on Monday sought a report from the authorities on the current status on disposal and management of fly ash.

⊙ BACKGROUND

○ In the past decade, there has been tremendous increase in the generation of fly-ash since more than 70% of country's demand for electricity is met by coal-based thermal power plants. At present, India produces approximately 180 million-tons of fly-ash. The disposal of such huge quantity of ash is a serious issue.

About Fly Ash

○ Fly ash is a by-product from burning pulverized coal in electric power generating plants. During combustion, mineral impurities in the coal (clay, feldspar, quartz, and shale) fuse in suspension and float out of the combustion chamber with the exhaust gases. As the fused material rises, it cools and solidifies into spherical glassy particles called fly ash. Fly ash is collected from the exhaust gases by electrostatic precipitators or bag filters.

Fly-Ash Generation in India

○ The generation of fly ash in India has increased from 68.88 million tonnes in 1996–97 to 163.56 million tonnes in 2012–13. The Ministry of Power, Govt. of India estimates that around 1800 million tonnes of coal will be used every year and 600 million tonnes of fly-ash will be generated by 2031-2032.

Application of Fly Ash

○ **Cement sector** - Fly ash is being currently used by Cement Industries as a pozzolanic material for manufacturing of Portland Pozzolana Cement (PPC). It saves both precious lime stone and coal.

○ **Mine Filling** - Fly ash is being used for backfilling of open cast mines and stowing of underground mines which results in saving of top fertile soil and precious river sand.

○ **Making Bricks & Tiles** - Fly ash is being used in manufacturing of fly ash based building products like bricks, blocks, tiles etc which results in saving of fertile top soil. Fly as based bricks/blocks/tiles are as good as clay based conventional building products in roads & embankments

○ **Agriculture** - Fly ash is being used as manure in agricultural sector as it has many micronutrients.

Fly ash provides the uptake of vital nutrients/minerals (Ca, Mg, Fe, Zn, Mo, S and Se) by crops and vegetation, and can be considered as a potential growth improver. It serves as a good fertilizer.

○ The maximum utilization of fly ash, during the Year 2014-15, to the amount of 42.26 % of total fly ash utilized was in the Cement sector, followed by 13.00 % in mine filling, 11.72 % in making bricks & tiles, 10.77 % in reclamation of low lying area, 9.56 % in ash dyke raising, 3.32 % in roads & embankments, 1.93 % in Agriculture, 0.74 % in Concrete, 0.01 % in Hydro Power Sector & 6.70 % in Others etc (CEA, 2014-15)

Utilization of Fly Ash in India

○ Out of 160 million tonnes, **only 100 million tonnes** was utilized. India has achieved a tremendous increase in its utilization from 9.63% in 1996–97 to 61.37% in 2012–13. According to MoEFCC, the fly ash utilisation in the country was 57.63 per cent in 2014 as against 13.51 per cent in 1999.

Benefits of fly ash include:

○ **Decreased water demand**: The replacement of cement by fly ash reduces the water demand for a given slump. When fly ash is used at about 20 percent of the total cementitious, water demand is reduced by approximately 10 percent.

○ **Reduced heat of hydration**: Replacing cement with the same amount of fly ash can reduce the heat of hydration of concrete. This reduction in the heat of hydration does not sacrifice long-term strength gain or durability. The reduced heat of hydration lessens heat rise problems in mass concrete placements.

○ **Increased ultimate strength**: The additional binder produced by the fly ash reaction with available lime allows fly ash concrete to continue to gain strength over time.

○ **Benefits to Hardened Concrete**: One of the primary benefits of fly ash is its reaction with available lime and alkali in concrete, producing additional cementitious compounds.

○ Improves the workability of concrete

○ Enhances the life of structures and buildings among others

Problems with Fly Ash:

◉ **Longer Setting Time**: Compared to cement and water, the chemical reaction between fly ash and calcium hydroxide typically is slower resulting in delayed hardening of the concrete

◉ **Air Content Control**: Concrete is susceptible to damage from freeze/thaw cycles if it does not contain air.

◉ **Seasonal Limitations:** The winter season is problematic for concrete pouring, and mixtures high in fly ash are even more susceptible to low temperatures.

◉ **Slower Strength Gain:** Concrete changes from a liquid to a solid a few hours after pouring, but the curing process may take much longer. It continues to gain strength for weeks after its initial setting period**.**

Solid Waste Management in India

◉ Solid Waste Management reduces or eliminates the adverse impact on the environment & human health. A number of processes are involved in effectively managing waste for a municipality. These include monitoring, collection, transport, processing, recycling and disposal.

Types of Solid Waste

◉ It can be classified into different types depending on their source:

  ➤ **Municipal Solid Waste (MSW)**: It consists of household waste, construction and demolition debris (CnD), sanitation residue, and waste from streets, generated mainly from residential and commercial complexes.

  ➤ **Industrial Solid Waste (ISW)**: In a majority of cases it is termed as hazardous waste as they may contain toxic substances, are corrosive, highly inflammable, or react when exposed to certain things e.g. gases.

  ➤ **Biomedical waste or hospital waste**: It is usually infectious waste that may include waste like sharps, soiled waste, disposables, anatomical waste, cultures, discarded medicines, chemical wastes, etc., usually in the form of disposable syringes, swabs, bandages, body fluids, human excreta, etc.

Solid waste management Methods

◉ **Centralised method**: This method involves collection of municipal waste from all over the local area and by means of landfilling, dump outside the city/nagar panchayat limits. This process looks at door-to-door collection of solid waste by waste pickers who hand over to the collection team who then discard the collected waste in the landfill. The waste pickers are employees of the Municipal Corporation or Nagar Panchayat. The collection team is generally contracted out by a tendering process.

◉ **De-centralized method**: This is a model seen in a few places like Suryapet in Andhra Pradesh and Bangalore in Karnataka. The waste is collected ward-wise and is **segregated at source** into bio-degradable and non-biodegradable. The biodegradable waste is composted at a nearby facility by different methods of aerobic and anaerobic composting. The non-biodegradable waste is further categorised into paper, plastic, metal and other waste and then further collected by recyclers for up-cycling or down-cycling of products.

Rules & Regulations associated with SWM

◉ Under the 74th Constitutional Amendment, Disposal and management of Municipal Solid Waste is one of the 18 functional domains of the Municipal Corporations and Nagar Panchayats. The various rules and regulations for solid waste management are:

  ➤ The Bio-Medical Waste (Management And Handling) Rules, 1998

  ➤ Municipal Solid Waste (Management And Handling) Rules 2000

  ➤ The Plastic Waste (Management And Handling) Rules, 2011

  ➤ E-Waste (Management And Handling) Rules, 2011

Government Initiatives

◉ In 2014 the **Swachh Bharat mission**, a five-year nationwide cleanup effort for systematic and total waste management was launched.

◉ **Energy-from-waste** initiative reduces the volume of waste from disposal also helps in converting the waste into renewable energy and organic manure. The NITI Aayog, as part of the Swachh Bharat Mission, envisages 800 megawatt from WTE plants by 2018-19, which is 10 times the capacity of all the existing WTE plants put together.

◉ MoEF&CC recently notified the new **Solid Waste Management Rules (SWM), 2016**.

◉ The MeitY has developed affordable technologies to recycle valuable materials and plastics in an environmentally sound manner, including two exclusive PCB recycling technologies.

◉ India has now **completely prohibited the import of solid plastic waste** by amending the Hazardous Waste (Management & Trans-boundary Movement) Rules.

◉ **Municipal Corporation of Greater Mumbai**, is an ICT enabled waste management project called

GPS based Vehicle Tracking and Monitoring System (VTMS). The system is a web based automatic vehicle tracking and telemetric fleet management incorporating Global Positioning System (GPS), combined with GPRS/GSM and digital map technology.

- India is a party to the Basel Convention on transboundary movement of hazardous wastes. The **Basel Convention** aims at controlling and reduction of transboundary movements of hazardous and other wastes.

- Utilization of plastic waste for enhancing the quality of roads and pavements is being carried out at various cities in India.

Problems in SWM in India

- **Open Dumping Practice**: The current waste management practice in India involves collecting waste from sources through a community collective bin system, after which it gets transported to a low-lying landfill system with intermediate processing of Municipal Solid Waste (MSW). The open dumping practice is leading to various problems like pollution and health hazards. Both surface and groundwater are affected by this; in fact, groundwater is in a critical state.

- **Infrastructure for segregation**: At present, mixed waste is usually collected and sent to the dump-sites/waste to energy (WtE) plants/compost plants. Effective system of waste segregation is required at appropriate stages i.e. source of waste generation, collection, transportation, processing and disposal.

- **Waste from fruit and vegetable markets**: There is no in-house treatment of wet waste generated in fruit and vegetable markets including mandis.

- **Lack of compliance and enforcement capacities**: There is lack of supervisory staff to oversee operations of solid waste management.

- **Costly Transportation**: Sanitary landfills are the ultimate means of disposal for unutilised municipal solid waste from waste processing facilities and other types of inorganic waste that cannot be reused or recycled. Major limitation of this method is the costly transportation of MSW to far away landfill sites

- **e-Waste** components contain toxic materials and are non-biodegradable which present both occupational and environmental health threats including toxic smoke from recycling processes and leaching from e-waste in landfill into local water tables.

- The solid waste in Indian cities makes it unsuitable for processing operations like incineration , pyrolysis , etc . due to the high percentage of non combustibles and moisture in the waste

◉ WAY FORWARD

- A detailed mapping of waste quantities, generation sources, and the associated characteristics is vital for the implementation of an effective plastic waste management mechanism in cities.

- Proper segregation of waste must be ensured at the source and that the waste goes through different streams of recycling and resource recovery.

- Bio-methanation is a solution for processing biodegradable waste which is also remains underexploited

- Innovative funding mechanisms, incentives, subsidies for bio-based and recycled plastic product development, and other possible sustainable alternative solutions may help expedite the research and innovation capabilities along with market outreach.

- Blending of recycled plastics with fillers and additives will enhance the strength and usability leading to value-added products.

- The government should expand its focus to 5 R (Reduce, Reuse, Recycle, Refuse, and Repair) instead of 3 R (Reduce, Reuse, Recycle) to reduce load on land filling.

📰 Practice Question

- **Despite having stringent laws about solid waste management, there has been little development at the ground for recycling and management of solid waste. Comment**
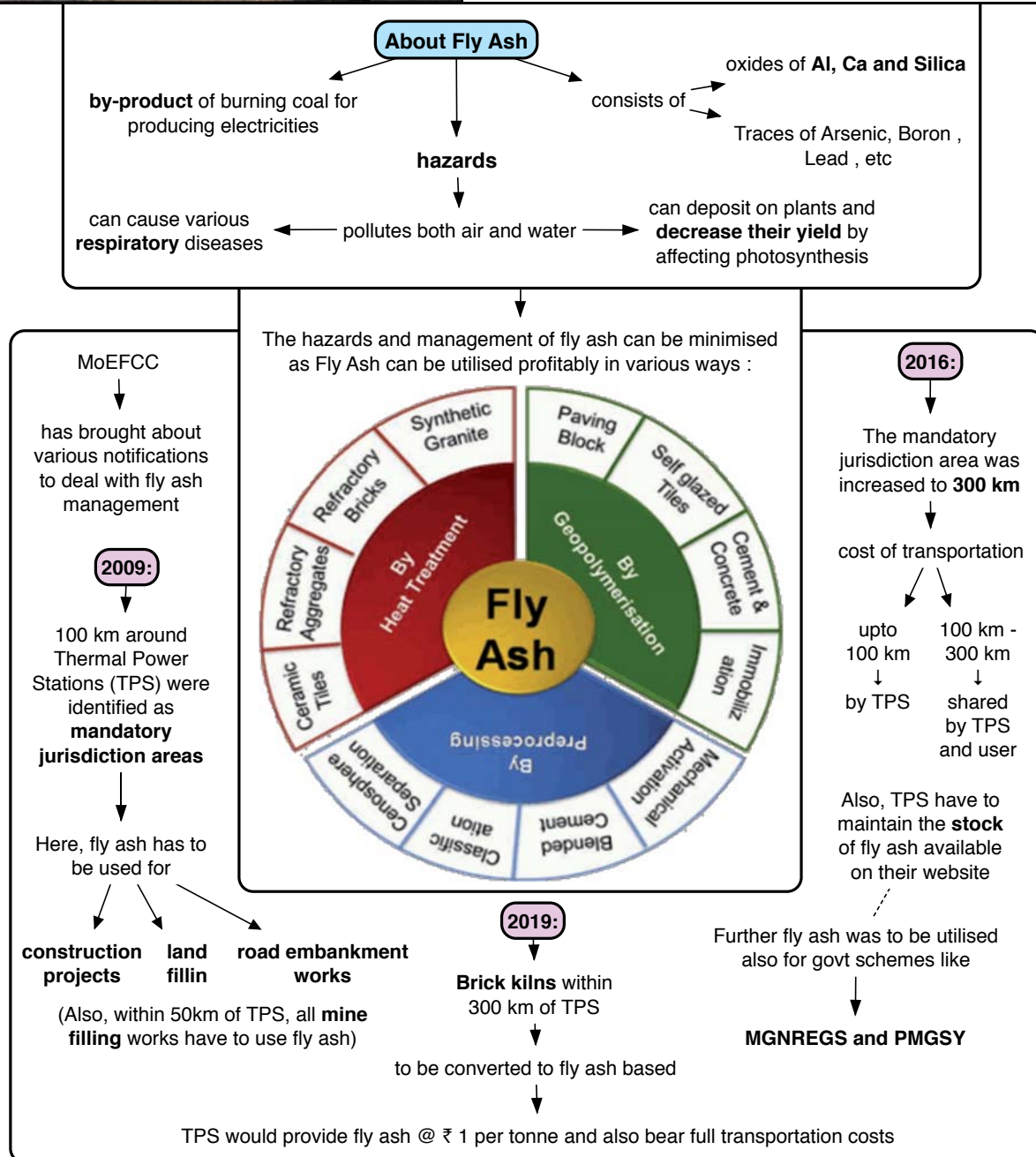
Fly Ash Management

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CONTEXT

In the past decade, there has been a tremendous increase in the generation of fly-ash since more than 70% of country's demand for electricity is met by coal-based thermal power plants. At present, India produces approximately 180 million-tons of fly-ash. The disposal of such huge quantity of ash is a serious issue.

Following a plea alleging unscientific handling of fly ash generated by a unit of NTPC, the NGT recently sought a report from the authorities on the current status on disposal and management of fly ash.

About Fly Ash

by-product of burning coal for producing electricities

consists of → oxides of **Al, Ca and Silica**

→ Traces of Arsenic, Boron, Lead, etc

hazards

can cause various **respiratory** diseases ← pollutes both air and water → can deposit on plants and **decrease their yield** by affecting photosynthesis

The hazards and management of fly ash can be minimised as Fly Ash can be utilised profitably in various ways :

MoEFCC

↓

has brought about various notifications to deal with fly ash management

2009:

↓

100 km around Thermal Power Stations (TPS) were identified as **mandatory jurisdiction areas**

↓

Here, fly ash has to be used for

construction projects **land fillin** **road embankment works**

(Also, within 50km of TPS, all **mine filling** works have to use fly ash)

2016:

↓

The mandatory jurisdiction area was increased to **300 km**

↓

cost of transportation

upto 100 km ↓ by TPS

100 km - 300 km ↓ shared by TPS and user

Also, TPS have to maintain the **stock** of fly ash available on their website

Further fly ash was to be utilised also for govt schemes like

↓

MGNREGS and PMGSY

2019:

↓

Brick kilns within 300 km of TPS

↓

to be converted to fly ash based

↓

TPS would provide fly ash @ ₹ 1 per tonne and also bear full transportation costs

The management of fly ash has increased utilisation levels of fly ash from a mere 10% in 1996-97 to approximately **67% in 2017-18**

⇩

However, cases of non compliance in mandatory jurisdiction area keep coming to the fore. Accordingly, it's important to further strengthen regulatory mechanisms for implementation of fly ash management in the country.

INDO-PACIFIC

CONTEXT

- The term "Indo-Pacific" is repeatedly used by the countries, as seen in recently held G20 summit as well as during the visit of US Secretary of State Michael Pompoe to Delhi. However, different countries interpret it differently.

⊙ BACKGROUND

- The region of 'Asia Pacific' played an important part in the Cold War due to strategic formation of alliances. However, after the Cold War ended, as Asian economies began to rise, the new geopolitical term used for the region changed to Indo-Pacific.

- The term 'Indo-Pacific' refers to the maritime space stretching from the littorals of East Africa and West Asia, across the Indian Ocean and western Pacific Ocean, to the littorals of East Asia.

- Today, the Indo-Pacific region is amongst the most dynamic in the world as well as, the centre of economic growth for decades. As a result, this region continues to experience geopolitical and geostrategic shifts. These shifts present opportunities as well as challenges. On the one hand, the economic growth of the region opens up possibilities of cooperation to alleviate poverty and elevate living standards of millions of people. On the other hand, the rise of material powers, i.e. economic and military, requires avoiding the deepening of mistrust, miscalculation, and patterns of behaviour based on a zero-sum game

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Difference between Asia Pacific and Indo-Pacific

- Asia Pacific and Indo-Pacific: The term Asia Pacific encompasses Oceania, North-East- Asia and South-East-Asia.

- Asia-Pacific is not a security term but an economic concept used to describe the emerging market economies of South-East and East-Asia.

- On the other hand, Indo-Pacific is an evolving concept capturing the region from East-Africa to Western Pacific and is a strategic-cum-economic conception with special focus on sea lanes of communication.

Current Scenario

- While traditional rivalries over maritime territory, sovereignty and resources have intensified among the regional countries, the rise of non-traditional threats such as terrorism, piracy, drug trafficking and climate change have thrown new challenges for the nation-states.

- **China's Assertiveness in:**

  ➤ South China Sea: China has been working to push its borders far out into international waters, by building artificial islands in the South China Sea. China's unilateral claim through it' nine-dash line has sparked disputes with the Philippines, Vietnam, Malaysia, and Indonesia. Now, after militarizing these outposts, it has now shifted its focus to the Indian Ocean.

  ➤ Arabian Sea: China is planning to open a new naval base next to Pakistan's China-controlled Gwadar port throught it's ambitious Belt and Road Initiative.

  ➤ Central Indian Ocean: It has leased several islands in the crisis-ridden Maldives, where it is set to build a marine observatory that will provide subsurface data supporting the deployment of nuclear-powered attack submarines (SSNs) and nuclear-powered ballistic missile subs (SSBNs) in the Indian Ocean. Moreover, China has rapidly developed its relationship with Indian Ocean rim countries, which is perceived as a 'string of pearls' strategy, to contain emerging India.

  ➤ East China Sea: The East China Sea is home to the major economic powerhouse of Asia, namely China, Japan, and Republic or Korea. Both China and Japan claim the rights over the region within the exclusive economic zone (EEZ) of 200 nautical miles. Japan has been managing the islands since 1895; however, China reclaimed the region by citing the historic rights over the area.

- **Non – Traditional Threats:** Strong link between the transnational crimes, piracy, and terrorism has advanced the complexity of non-traditional maritime threats in Indo-Pacific.

  ➤ **Piracy:** Piracy in the Indian Ocean has been among the many other threats and led to about US $6 billion in annual losses to the shipping industry between 2010 and 2012.

  ➤ **Terrorism:** Maritime terrorism began to be taken as serious threats after the 26/11 Mumbai attacks which killed 160 people. Maritime terrorist evolve from using the ship lines as supply chain to conduct terror attacks towards

ships and vessels to send political message. The recent horrific Easter Sunday attack in Srilanka took more than 260 lives.

➤ **Human Trafficking and Smuggling:** Human smuggling and drug trafficking are also common transnational crimes found in Indo-Pacific. Drugs produced in Afghanistan, India, and Indonesia is distributed by sea to other countries through illegal markets. Moreover hundreds of percent profit margins are often used to fund other illegal activities such as terrorism and piracy.

◎ **Rivalry between US and China:** Trade tensions between the U.S. and China over Beijing's technology policy and other market access issues have added to strains in the Indo-Pacific region. The two sides have imposed tariffs on billions of dollars of each other's products in a standoff that has shown no sign of easing.

◎ **Rivalry between India and China:** The Chinese maritime strategy is based on securing the sea lanes of communication to feed the domestic economy with resources and minerals. Indian maritime expansion is based on not only protecting the sea lanes of communication but also checking Chinese presence in its backyard, that is, the Indian Ocean.

◎ **Threat to maritime Protection:** Countries in the Indo–Pacific region are in the midst of a security dilemma regarding their maritime protection. As a result, countries are scaling up the production of submarines, which are considered symbols of tackling statist threats.

◎ **Threat to Ecology:** Seaborne economic activities, such as oil transfer and offshore drillings, fishing, and cruise ship movements have the potential to damage the surrounding marine environment. Major oil spills to the sea would affect the sea ecology and eventually killed many marine species. Illegal fishing that often use explosives and cruise ships are prone to endanger the coral reefs that harbour marine biodiversity.

Global Significance of Indo-Pacific Region

◎ **Mineral Resources:** Maritime territories have also emerged as depositories of vital resources ranging from fish stocks to minerals and offshore oil and gas.48 The South China Sea, for instance, is estimated to hold some 10 per cent of the global catch of fish as well as 11 billion barrels of oil and 190 trillion cubic feet (tcf) of gas.

◎ **Global Growth:** According to a report of the Asian Development Bank (ADB), countries in the Indo-Pacific produce over 60% of global GDP, making the region the largest single contributor to global growth.

◎ **Trade and Commerce:** The region consists of many of the world's vital choke points for global

commerce, including the Straits of Malacca which is very critical for the growth of world economy. The Indo-Pacific region also stands at the intersection of international trade, with around 32.2 million barrels of crude oil pass through annually and 40% of global exports come from the region.

Significance of Indo-Pacific for India

◎ In 2017, during the meeting of Modi with Trump, the two sides for the first time used the term called Indo-Pacific. The meaning both sides tried to convey through the term Indo-Pacific was that India and USA are both democratic stalwarts and responsible stewards of the Indo-Pacific region.

◎ The Indo-Pacific region was the main topic of discussion during the Japan-India-America (JAI) Trilateral Meeting of Prime Minister Narendra Modi, US President Donald Trump and Japanese Prime Minister Shinzo Abe on the sidelines of the G20 Summit 2019.

Maritime Trade

◎ Pacific islands are strategically significant from New Delhi's point of view as they sit astride important sea lines of communication through which important maritime trade is conducted.

◎ India has been going slow on RCEP negotiations as it is wary of China's presence in the grouping, with which New Delhi already has a massive $60 billion trade deficit.

Connectivity

◎ Freedom of navigation and openness of sea lanes which extend from East Africa to the west coast of North and South America will enhance connectivity

◎ ASEAN resides at the connecting point of the Indian Ocean and the Pacific Ocean

Infrastructure

◎ The United States, India and Japan are working together to finance sustainable and community-driven infrastructure projects which are vital to the development of the region.

India's Stand

◎ PM Modi put forth India's vision of the Indo-Pacific at the Shangri La dialogue, 2018. The view was consistent with the overall norms enunciated by regional powers, including the US, Japan, Australia and Indonesia with the ASEAN at the heart of it. He made it clear that India does not take sides, but chooses the side of values and principles which are eloquently enunciated by ASEAN. Thus, India's approach towards larger Indo-Pacific is spindled around ASEAN and what the ASEAN stands for.

- India not only professes these principles through words but also practice them in her relations with other nations which was demonstrated when she peacefully settled her maritime boundary dispute with Bangladesh in 2014.

Initiative taken by India

- Migration from Look East to Act East: In 2014, India had announced the transition from Look East Policy (LEP) to the Act East Policy (AEP). A key element of the AEP is that India has started internationalizing disputes in the Indo-Pacific region to put psychological pressure on irritants for example, mentioning the South China Sea dispute in bilateral India – US Statement.

- Strengthening ties with Pacific Island Countries: A new element of India's Act East policy has been the extension of India's Look East policy beyond the ASEAN, with emphasis on strengthening ties with 14 Pacific island countries like Fiji, Papua New Guinea, Kiribati, Cook Islands etc.

- Indo Pacific Wing: India has set up an Indo-Pacific Wing in the Ministry of External Affairs in April 2019.

- Revamp Naval Infrastructure: India also seeks to upgrade the naval facility in Andaman and Nicobar Islands which will later become India's naval outpost to reach Southeast Asia and beyond to the Pacific.

- Regional Forums: membership of regional forums (including several initiatives where India plays a prominent role, such as the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), Mekong–Ganga Cooperation (MGC) and the Bangladesh–China–India–Myanmar [BCIM] Forum. Indian Ocean Rim Association (IORA

- Security interactions: The idea of the QUAD is for the leaders of the four nations to promote free trade and defence cooperation across a stretch of ocean from the SCS, across the Indian Ocean and all the way to Africa. It was aimed at countering China's aggressive maritime expansion under its BRI.

- India – Australia: In 2017, when Australian PM visited India, both the sides decided to strengthen naval cooperation in the Indo–Pacific and work jointly for ensuring a legal maritime order and freedom navigation.

- India – Africa: India's growing partnership with Africa can be seen through the convening of mechanisms like the India-Africa Forum Summits.

- India – Japan - India and Japan have been gradually building on it by participating in each other's maritime think-tanks, the Indian and Japanese Navies jointly participating in multilateral exercises (Malabar series) and the bilateral exercise (JIMEX12)

Challenges for India

- Indo – Pacific is too vast an operational area without any policy prioritisation. Indeed, the Indian navy does not view this extended maritime realm of the Indo-Pacific as the domain of its strategic priority

- India has little defence and security leverage in littoral and island states. This acts as a disincentive for India to extend its reach in South China Sea or broader Pacific Ocean.

- India does not keen on 'operationalising' or militarising the Quad with the intention to counter China. So it needs to find the way for how it will integrate the Quadrilateral initiative with its larger Indo-Pacific approach. This was compounded by India's reluctance to include Australia in the annual Malabar-series of joint trilateral naval exercises with Japan and the US

- India's strategy in the Indian Ocean can only operate as far as the constraints set by India's limited naval expansion programme. India's total number of submarines is in decline with no follow-on acquisition programme in place. This situation is compounded by the lack of an adequate number of multi-role helicopters and minesweepers.2

- There are differences between India's vision and the U.S.'s strategy for the Indo-Pacific even as countries like China and Russia view the Indo-Pacific with suspicion

Criticism of Indo – Pacific Concept

- The Indo-Pacific concept gives priority to the maritime domain over continental concerns. But many of Asia's major strategic rivalries remain land based like India-China

- Although Indo-Pacific region is envisaged as a single integrated geopolitical space but the security dynamics of the Indian Ocean and Western are divergence. Western Pacific is immersed in intra-state conflicts whereas threats facing the Indian Ocean emanate primarily from non-state actors.

How India is better placed in Asia Pacific?

- India has ranked fourth out of 25 nations in the Asia-Pacific region on an index that measures their overall power, with the country being pegged as a "giant of the future". The US, in particular, considers India as a 'linchpin' in its rebalancing strategy towards the region.

📄 Practice Question

- Discuss the conventional and non-conventional issues prevailing in the Indo-Pacific Region. How India can act as lynchpin for the region.
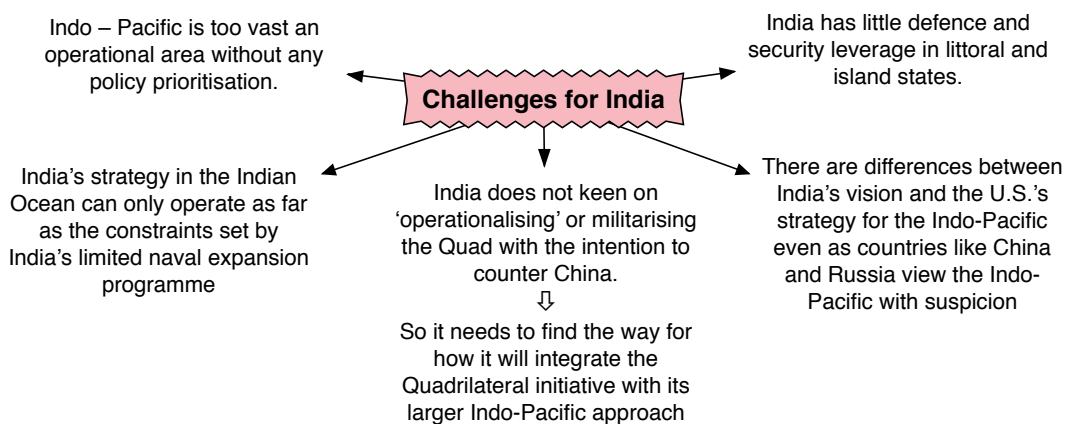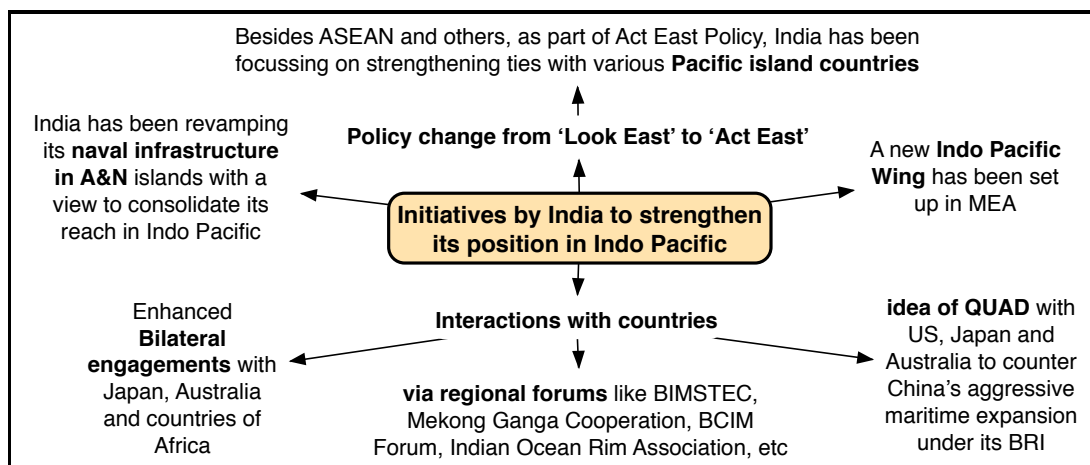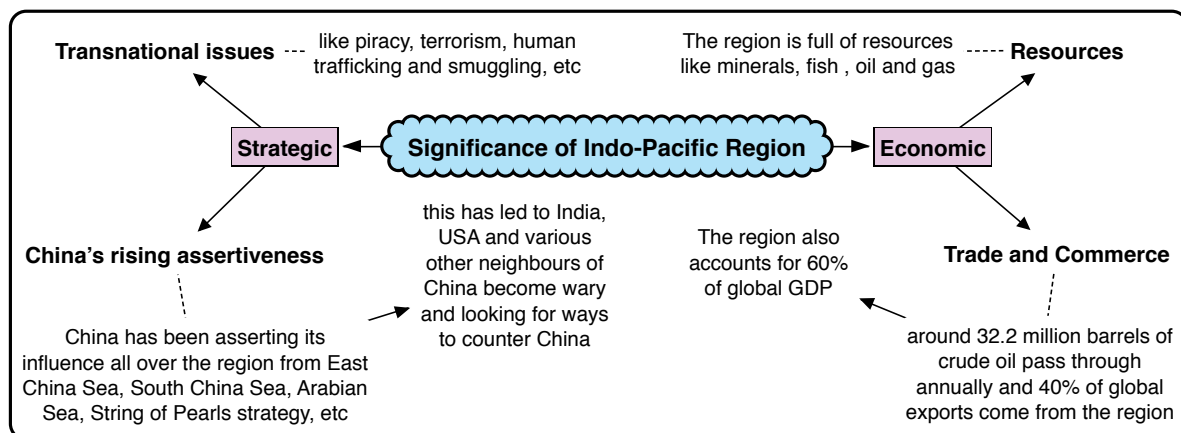
INDO-PACIFIC REGION

Indo-Pacific Region

CONTEXT

The term "Indo-Pacific" is being repeatedly used by various countries, as seen in recently held G20 summit as well as during the visit of US Secretary of State Michael Pompeo to Delhi.

GSSCORE
Learning Aid

"Indo-Pacific" is an evolving concept capturing the region from East-Africa to Western Pacific and is a **strategic-cum-economic** conception with special focus on sea lanes of communication.

Transnational issues --- like piracy, terrorism, human trafficking and smuggling, etc

The region is full of resources like minerals, fish, oil and gas ----- **Resources**

Strategic ◄─── **Significance of Indo-Pacific Region** ─► **Economic**

China's rising assertiveness

this has led to India, USA and various other neighbours of China become wary and looking for ways to counter China

The region also accounts for 60% of global GDP

Trade and Commerce

China has been asserting its influence all over the region from East China Sea, South China Sea, Arabian Sea, String of Pearls strategy, etc

around 32.2 million barrels of crude oil pass through annually and 40% of global exports come from the region

Besides ASEAN and others, as part of Act East Policy, India has been focussing on strengthening ties with various **Pacific island countries**

India has been revamping its **naval infrastructure in A&N** islands with a view to consolidate its reach in Indo Pacific

Policy change from 'Look East' to 'Act East'

A new **Indo Pacific Wing** has been set up in MEA

Initiatives by India to strengthen its position in Indo Pacific

Enhanced **Bilateral engagements** with Japan, Australia and countries of Africa

Interactions with countries

idea of QUAD with US, Japan and Australia to counter China's aggressive maritime expansion under its BRI

via regional forums like BIMSTEC, Mekong Ganga Cooperation, BCIM Forum, Indian Ocean Rim Association, etc

Indo – Pacific is too vast an operational area without any policy prioritisation.

India has little defence and security leverage in littoral and island states.

Challenges for India

India's strategy in the Indian Ocean can only operate as far as the constraints set by India's limited naval expansion programme

India does not keen on 'operationalising' or militarising the Quad with the intention to counter China.
⇩
So it needs to find the way for how it will integrate the Quadrilateral initiative with its larger Indo-Pacific approach

There are differences between India's vision and the U.S.'s strategy for the Indo-Pacific even as countries like China and Russia view the Indo-Pacific with suspicion

Bottomline
India has ranked fourth out of 25 nations in the Asia-Pacific region on an index that measures their overall power, with the country being pegged as a "giant of the future". The US, in particular, considers India as a 'linchpin' in its rebalancing strategy towards the region. India must not miss this opportunity to enhance its strategic and economic interests in the region.

EDUCATION QUALITY UPGRADATION AND INCLUSION PROGRAMME

CONTEXT

- **The draft National Education Policy has been released at a time when India is in a severe learning crisis phase.**

- **While the draft proposes transformative reforms at school and higher education level, to be able to gauge its efficacy will depend upon past reformatory steps taken and outcome achieved thus far.**

⊙ ABOUT:

Draft National Education Policy 2019

- The Committee for **Draft National Education Policy (Chair: Dr. K. Kasturirangan**) submitted its report on May 31, 2019.

- This Committee was constituted by the Ministry of Human Resource Development in June 2017.

- The report proposes an education policy, which seeks to address the challenges of:

- (i) access, (ii) equity, (iii) quality, (iv) affordability, and (v) accountability faced by the current education system.

⊙ BACKGROUND

Present status of the education system in India

- **Primary education:**

  ➤ One silver lining is the **enrolment ratio at Primary schools** which has been a success story, largely due to various programs and drives to increase even in remote areas.

  ➤ **Improvements to infrastructure** have been a priority to achieve this and **India now has 1.4 million schools and 7.7 million teachers** so that 98 percent of habitations have a primary school (class I-V) within one kilometer **and 92 percent have an upper primary school** (class VI-VIII) **within a three-kilometer walking distance**.

  ➤ Despite these improvements, **keeping children in school through graduation is still an issue** and **dropout rates** continue to be **high.**

- Nationally, 29 percent of children drop out before completing five years of primary school.

- 43 percent drop out before finishing upper primary school.

- There is a teacher shortage of 689,000 teachers in primary schools.

Quality of learning is a major issue

- There is a severe learning crisis in India. Time and again this has been emphasized by several national and international level studies.

- The **Annual Status of Education Report (ASER)**, stated that 50% of Class V students were unable to even read the text meant for students three levels below.

- Without immediate remedial assistance, these children cannot effectively progress in the education system. These future citizens will be low on skill level requirements of Industry 4.0

- In the longer run, this will act as roadblock in the path of **demographic dividend's realization**.

⊙ ANALYSIS

Challenges in the Education sector

- India has the third largest higher education system in the world, and is behind only the US and China.

- Higher educational institutions churn out around 2.5 million graduates every year. However, this caters to just about 10 per cent of India's youth and the quality of this output is considered below par.

- Education reforms are focused mostly on inputs rather than learning outcomes as the performance of schools is assessed only by infrastructure and midday meals. This has been one of scathing criticism of Sarva Shiksha Abhiyan.

- Also, teachers tasked with raising student standards are burdened with administrative tasks. Budgetary constraints and lack of manpower and technological resources are other barriers.

- As a result, schools resort to rote-learning techniques to cope up with the mounting performance pressures.

Challenges at higher education level:

- Indian universities have become moribund institutions run by cloistered, change-resistant bureaucracies where curricula are not updated for years.

- Students are not exposed to cutting edge research and ideas - CSIR has research avenues but these are cut off from University linkages.

- Political interference in selections, appointments and day-to-day administrative of universities.

⊙ Mistaken belief that homogenization of institutions will produce greater pedagogic creativity. This leaves no room for competition among higher education institutions.

Education and Human resource management in the globalized world

⊙ The education is a soft infrastructure. It is a public good and hence the state has to assume ownership of driving and rowing in the learning outcome.

⊙ **International Commission on Education for the Twenty-first Century** was **chaired** by **Jacques Delors**. He submitted the report to UNESCO in 1996 **titled - Learning: The Treasure Within'.**

⊙ **Following are the key takeaways from his report:**

➤ **Learning to know -** acquiring a body of knowledge and learning how to learn, so as to benefit from the opportunities education provides throughout life

➤ **Learning to do -** acquiring not only an occupational skill but also the competence to deal with many situations and work in teams, and a package of skills that enables one to deal with the various challenges of working life

➤ **Learning to live together** - developing an understanding of other people and an appreciation of interdependence in a spirit of respect for the values of pluralism, mutual understanding and peace

➤ **Learning to be** - developing one's personality and being able to act with autonomy, judgment and personal responsibility, while ensuring that education does not disregard any aspect of the potential of a person: memory, reasoning, aesthetic sense, physical capacities and communication skills

⊙ **Why mentioning this report here: -** current proposals related to New Education Policy revolved around above mentioned factors - which shall be illustrated in the following segment.

⊙ **A brief discussion on New Draft on Education. It has four parts.**

➤ Part I - School Education

➤ Part II - Higher Education

➤ Part III - Additional Key Focus Areas

➤ Part IV - Transforming Education

(A) School Education

● **Early Childhood Care and Education**

⊙ **Current issues observed:** Problems of access, curriculum that doesn't meet the developmental needs of children, lack of qualified and trained teachers and substandard pedagogy.

⊙ Recommendation: Developing a two-part curriculum for early childhood care and education.

⊙ This will consist of:

➤ guidelines for up to three-year-old children (for parents and teachers

➤ Educational framework for three to eight-year-old children.

⊙ This would be implemented by improving and expanding the anganwadi system and co-locating anganwadis with primary schools.

● **The Right to Education Act, 2009 (RTE Act)**

➤ Currently, the RTE Act provides for free and compulsory education to all children from the age of six to 14 years.

➤ The draft Policy recommends extending the ambit of the RTE Act to include early childhood education and secondary school education.

➤ This would extend the coverage of the Act to all children between the ages of three to 18 years.

➤ There must be continuous and comprehensive evaluation and the no detention policy must be reviewed.

● **Curriculum framework**

➤ The current structure of school education must be restructured on the basis of the development needs of students.

➤ This would consist of **a 5-3-3-4 design** comprising: (i) **five years of foundational stage** (**three years of pre-primary school and classes one and two**), (ii) **three years** of preparatory stage (**classes three to five**), (iii) three years of **middle stage** (**classes six to eight**), and (iv) four years of **secondary stage (classes nine to 12**).

● **School exam reforms**

➤ **Current Issues observed:** Current board examinations: (i) force students to concentrate only on a few subjects, (ii) do not test learning in a formative manner, and (iii) cause stress among students.

➤ To track students' progress throughout their school experience, the draft Policy proposes State Census Examinations in classes three, five and eight.

➤ It recommends restructuring the board examinations to test only core concepts, skills and higher order capacities. These board examinations will be on a range of subjects.

➤ The students can choose their subjects, and the semester when they want to take these board exams. The in-school final examinations may be replaced by these board examinations.

● **School infrastructure**

➤ Multiple public schools should be brought together to form a school complex. A complex will consist of one secondary school (classes

nine to twelve) and all the public schools in its neighborhood that offer education from pre-primary till classes eight.

➤ The complexes will also include anganwadis, vocational education facilities, and an adult education centre.

● **Teacher management**

➤ Teachers should be deployed with a particular school complex for at least five to seven years and will not be allowed to participate in any non-teaching activities (such as cooking mid-day meals or participating in vaccination campaigns) during school hours.

● **Regulation of schools**

➤ Creation of an independent State School Regulatory Authority for each state that will prescribe basic uniform standards for public and private schools. The Department of Education of the State will formulate policy and conduct monitoring and supervision.

(b) Higher Education

◎ Lack of access as a major reason behind low intake of higher education in the country.

● **Regulatory structure and accreditation**

➤ **Current issues observed:** Multiple regulators with overlapping mandates which creates an environment of dependency and centralized decision making.

➤ **Recommendation:** Setting up the National Higher Education Regulatory Authority (NHERA).

➤ This independent authority would replace the existing individual regulators in higher education, including professional and vocational education.

➤ This implies that the role of all professional councils such as AICTE and the Bar Council of India would be limited to setting standards for professional practice.

➤ The role of the University Grants Commission (UGC) will be limited to providing grants to higher educational institutions.

● **Establishment of new higher educational institutions:**

➤ Currently, higher educational institutions can only be set up by Parliament or state legislatures. The draft Policy proposes that these institutions could be allowed to be set up through a Higher Education Institution Chartered from NHERA.

● **Restructuring of higher education institutions:**

➤ Higher education institutions will be restructured into three types: (i) research universities focusing equally on research and teaching; (ii) teaching universities focusing primarily on teaching; and (iii) colleges focusing only on teaching at undergraduate levels.

● **Establishing a National Research Foundation**

➤ An autonomous body, for funding, mentoring and building the capacity for quality research in India. The Foundation will consist of four major divisions: sciences, technology, social sciences, and arts and humanities, with the provision to add additional divisions.

● **Making undergraduate programmes interdisciplinary**

The curriculum to include:

➤ A common core curriculum

➤ One/two area(s) of specialization.

➤ Students will be required to choose an area of specialization as 'major', and an optional area as 'minor'. Four-year undergraduate programmes in Liberal Arts will be introduced and multiple exit options with appropriate certification will be made available to students.

● **Professional development of faculty:**

➤ Continuous Professional Development programme and introduction of a permanent employment (tenure) track system for faculty in all higher education institutions by 2030. Further, a desirable student-teacher ratio of not more than 30:1 must be ensured.

(C & D) Additional Key focus areas and Transforming Education

● **Education Governance**

➤ Creation of a National Education Commission or Rashtriya Shiksha Aayog as an apex body for education, to be headed by the Prime Minister.

➤ This body will be responsible for developing, implementing, evaluating, and revising the vision of education in the country on a continuous and sustained basis.

➤ It will oversee the implementation and functioning of several bodies including the National Council of Educational Research and Training (NCERT), the proposed National Higher Education Regulatory Authority, and National Research Foundation.

● **Financing Education**

➤ The Draft Policy reaffirmed the commitment of spending 6% of GDP as public investment in education.

- ➤ First National Education Policy (NEP) 1968 had recommended public expenditure in education must be 6% of GDP, which was reiterated by the second NEP in 1986.
- ➤ In 2017-18, public expenditure on education in India was 2.7% of GDP.

- **Technology in Education**
  - ➤ National Mission on Education through information and communication technology
  - ➤ National Repository on Educational Data

- **Vocational Education**

  Less than 5% of the workforce in the age-group of 19-24 receives vocational education in India.
  - ➤ All school students must receive vocational education in at least one vocation in grades nine to 12.
  - ➤ Curriculum must match the National Skills Qualifications Framework.

- **Adult Education**

  As per Census 2011, India still had over 3.26 crore youth non-literates (15-24 years of age) and a total of 26.5 crore adult non-literates (15 years and above).
  - ➤ Establish an autonomous Central Institute of Adult Education, as a constituent unit of NCERT
  - ➤ It will develop a National Curriculum Framework for adult education.
  - ➤ The Framework will cover five broad areas: foundational literacy and numeracy, critical life skills vocational skills development, basic education, and continuing education.

- **Education and Indian Languages**

  A large number of students fall behind since classes in schools are being conducted in a language that they do not understand.
  - ➤ Medium of instruction must either be the home language/mother tongue/local language till grade five, and preferable till grade eight.
  - ➤ **Three language formula** be continued and flexibility in the implementation of the formula should be provided.

- **Education Quality Upgradation and Inclusion Programme (EQUIP)**

  The ten Expert Groups drawn from senior academicians, administrators and industrialists, have suggested more than 50 initiatives that would transform the higher education sector completely. The Groups have set the following goals for higher education sector:
 - ➤ Double the Gross Enrolment Ratio (GER) in higher education and resolve the geographically and socially skewed access to higher education institutions in India
  - ➤ Upgrade the quality of education to global standards
  - ➤ Position at least 50 Indian institutions among the top-1000 global universities
  - ➤ Introduce governance reforms in higher education for well-administered campuses
  - ➤ Accreditation of all institutions as an assurance of quality
  - ➤ Promote Research & Innovation ecosystems for positioning India in the Top-3 countries in the world in matters of knowledge creation
  - ➤ Double the employability of the students passing out of higher education
  - ➤ Harness education technology for expanding the reach and improving pedagogy
  - ➤ Promote India as a global study destination
  - ➤ Achieve a quantum increase in investment in higher education

Way Forward:

- ◎ The draft talks about better engagement of the private sector and provisioning for government funding for R&D work through a proposed national research fund.

- ◎ The proposals look forward-looking, but what the final draft needs to do is differentiate between deregulation and liberalization. The incentive for the private sector to invest, grow and stand on quality parameters needs to be clearly articulated.

- ◎ The union must ensure that the policy does not face litigation, state resistance, and operational challenges on the ground.

- ◎ Transforming the education system is a value-driven and emotional process, which needs to be implemented strategically through a behavioral change process.

- ◎ The best way could be following similar strategies as that of the Swachh Bharat Mission — the largest behavior change programme and transplanting it to the education sector..

Practice Question

- ◎ **The draft National Education Policy despite being optimistic lacks operational details and does not offer insights into how the policy will be funded, monitored and executed. Critically evaluate causal factors behind current status of education and suggest remedial measures citing the draft proposals.**

Draft National Education Policy 2019

GS SCORE
Learning Aid
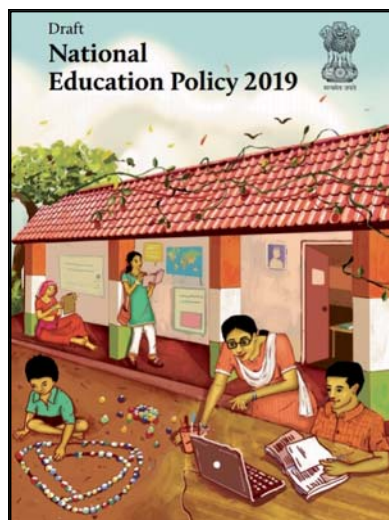
The Draft National Education Policy 2019 envisions an **India centred education system** that contributes directly to transforming our nation sustainably into an equitable and vibrant knowledge society, by providing **high quality education to all.**

It is based on Kasturiranjan committee recommendations of 2017 to fulfill the SDG 4 (inclusive and equitable quality education)

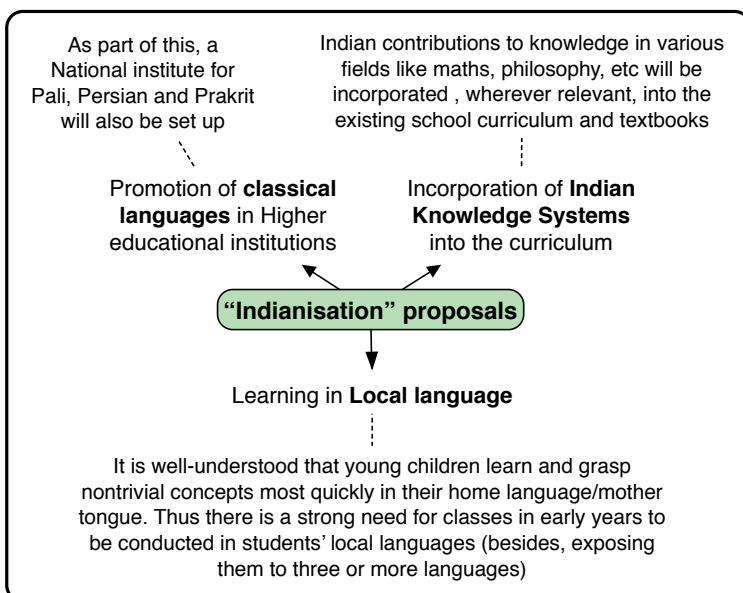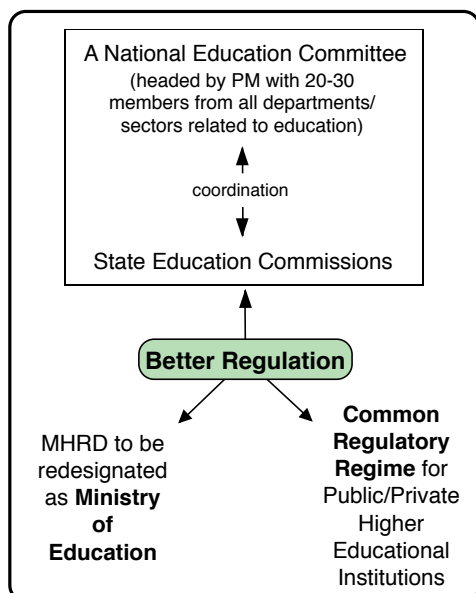Here, we have summarised key recommendations of the policy

School education
- Three years of preschool instead of two, followed by 12 years of schooling
- Free and compulsory schooling under Right to Education from preschool till Grade (Class) XII, instead of the current Class I to VIII
- A nutritious breakfast — perhaps of milk and a banana — for preschool and primary school pupils in addition to the midday meal
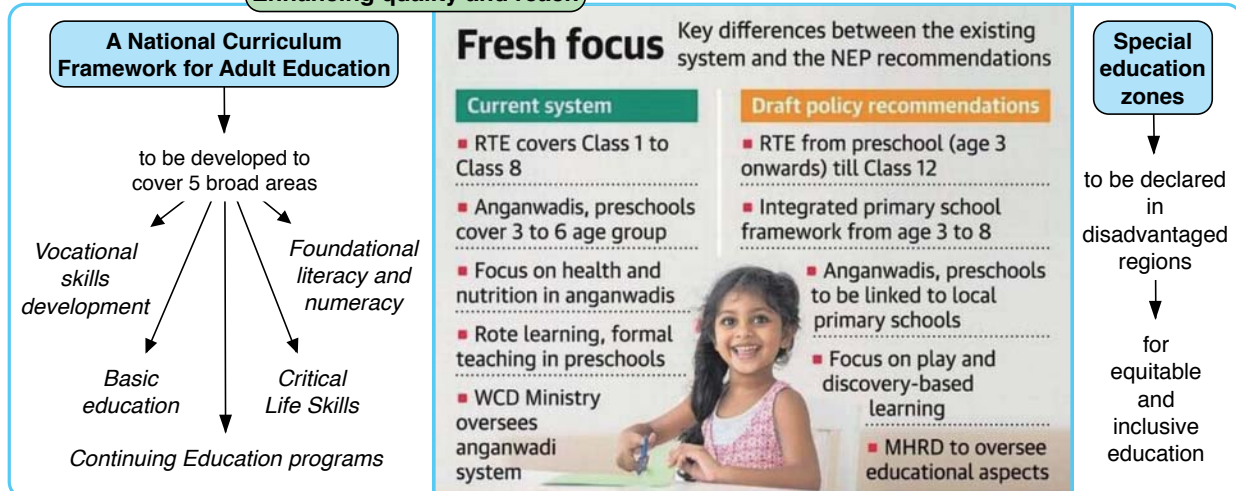- Children to be exposed to multiple languages right from the "foundational stage", made up of preschool and Grades (Classes) I and II

Higher Education
- Four-year honours programmes for undergraduate general-stream courses
- Multiple exit options: Students can leave with a diploma after two years or with a graduate degree (without honours) after three years

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A National Education Committee
(headed by PM with 20-30 members from all departments/ sectors related to education)

↕ coordination

State Education Commissions

Better Regulation

MHRD to be redesignated as **Ministry of Education**

Common Regulatory Regime for Public/Private Higher Educational Institutions

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As part of this, a National institute for Pali, Persian and Prakrit will also be set up

Indian contributions to knowledge in various fields like maths, philosophy, etc will be incorporated, wherever relevant, into the existing school curriculum and textbooks

Promotion of **classical languages** in Higher educational institutions

Incorporation of **Indian Knowledge Systems** into the curriculum

"Indianisation" proposals

Learning in **Local language**

It is well-understood that young children learn and grasp nontrivial concepts most quickly in their home language/mother tongue. Thus there is a strong need for classes in early years to be conducted in students' local languages (besides, exposing them to three or more languages)

Enhancing quality and reach

A National Curriculum Framework for Adult Education

to be developed to cover 5 broad areas

- *Vocational skills development*
- *Foundational literacy and numeracy*
- *Basic education*
- *Critical Life Skills*
- *Continuing Education programs*

Fresh focus Key differences between the existing system and the NEP recommendations

Current system	Draft policy recommendations
RTE covers Class 1 to Class 8	RTE from preschool (age 3 onwards) till Class 12
Anganwadis, preschools cover 3 to 6 age group	Integrated primary school framework from age 3 to 8
Focus on health and nutrition in anganwadis	Anganwadis, preschools to be linked to local primary schools
Rote learning, formal teaching in preschools	Focus on play and discovery-based learning
WCD Ministry oversees anganwadi system	MHRD to oversee educational aspects

Special education zones

to be declared in disadvantaged regions

for equitable and inclusive education

BOTTOMLINE
Transforming the education system is a value-driven and emotional process, which needs to be implemented strategically through a behavioural change process. The best way could be following similar strategies as that of the Swachh Bharat Mission — the largest behaviour change programme and transplanting it to the education sector.

INTERNATIONAL ARBITRATION CENTRE BILL PASSED IN LOK SABHA

CONTEXT

- The Lok Sabha has passed the New Delhi International Arbitration Centre Bill, aimed at establishing an independent and autonomous body for institutionalized domestic and international arbitration.

⊙ BACKGROUND

- The Government in view of the urgency to make India a hub of institutionalized arbitration and promote 'Ease of Doing Business' promulgated The New Delhi International Arbitration Centre Ordinance, 2019 on March 2, 2019, to establish an autonomous and independent institution for better management of arbitration in India.

- Previously, a similar Bill was passed by Lok Sabha on January 4, 2019. However, the Bill lapsed with the dissolution of the 16th Lok Sabha.

- As per the provisions of Article 107(5) of the Constitution of India, a Bill, which has been passed by the Lok Sabha but is still pending in the Rajya Sabha, shall lapse on dissolution of the Lok Sabha.

⊙ ANALYSIS

What are the Key features of the Bill?

- **New Delhi International Arbitration Centre (NDIAC):** The Bill seeks to provide for the establishment of the NDIAC to conduct arbitration, mediation, and conciliation proceedings. It declares the NDIAC as an institution of national importance.

- **International Centre for Alternative Dispute Resolution (ICADR):** The ICADR is a registered society to promote the resolution of disputes through alternative dispute resolution methods (such as arbitration and mediation). The Bill seeks to transfer the existing ICADR to the central government. Upon notification by the central government, all the rights, title, and interest in the ICADR will be transferred to the NDIAC.

- **Composition:** The NDIAC will consist of seven members including:

  ➤ Chairperson who has been a Judge of the Supreme Court or a High Court, or an eminent person with special knowledge and experience in the conduct or administration of arbitration.

  ➤ Two eminent persons having substantial knowledge and experience in institutional arbitration.

  ➤ Three ex-officio members, including a nominee from the Ministry of Finance and a Chief Executive Officer (responsible for the day-to-day administration of the NDIAC).

  ➤ A representative from a recognised body of commerce and industry, appointed as a part-time member, on a rotational basis.

- **Term and superannuation:** The members of NDIAC will hold office for three years and will be eligible for re-appointment. The retirement age for the Chairperson is 70 years and other members are 67 years.

- **Finance and audit:** The NDIAC will be required to maintain a fund which will be credited with grants received from the central government, fees collected for its activities, and other sources. The accounts of the NDIAC will be audited and certified by the Comptroller and Auditor-General of India.

- **Institutional support:** The Bill specifies that the NDIAC will establish a Chamber of Arbitration which will maintain a permanent panel of arbitrators. Further, the NDIAC may also establish an Arbitration Academy for training arbitrators and conducting research in the area of alternative dispute resolution.

Aim and Objectives of NDAIC

- To bring targeted reforms to develop itself as a flagship institution for conducting international and domestic arbitration

- Provide facilities and administrative assistance for conciliation mediation and arbitral proceedings;

- Maintain panels of accredited arbitrators, conciliators and mediators both at national and international level or specialists such as surveyors and investigators;

- Facilitate conducting of international and domestic arbitrations and conciliation in the most professional manner.

- Provide cost effective and timely services for the conduct of arbitrations and conciliations at Domestic and International level.

- Promote studies in the field of alternative dispute resolution and related matters, and to promote reforms in the system of settlement of disputes.

- Co-operate with other societies, institutions and organizations, national or international for promoting alternative dispute resolution.

⊙ SIGNIFICANCE

- According to the World Bank's latest annual Ease of Doing Business report, 2018, India ranks 100th

among 190 countries. In 2017, it was placed at 130th spot.

- The dispute resolution process has a huge impact on the economy and doing business in a country. The rapidly changing economic activity demands expeditious settlement of disputes, creation and establishment of mechanism such as institutional arbitration. This is necessary to inspire confidence and credibility among the litigants of commercial disputes.

- Also, The indicator of 'enforcing contracts' measures the time and cost for resolving a commercial dispute through a local court of the first instance and the quality of judicial processes index, evaluating whether each economy has adopted a series of good practices that promote quality and efficiency in the court system.

- The huge pendency of cases in courts further underlines the need for strengthening the Alternative Dispute Resolution mechanism.

- The committee headed by former Supreme Court judge B N Srikrishna had lamented that the International Centre for Alternative Dispute Resolution (ICDAR) in Delhi had only conducted 22 arbitrations in 23 years .

- The Committee, inter alia, recommended that the International Centre for Alternative Dispute Resolution, which was set up in the year, 1995, with the Government funds to promote alternative dispute resolution mechanism has however not been able to achieve the objectives for which it had been set up.

- Establishment of New Delhi International Arbitration Centre also aims to turn India into an alternative destination to Singapore for international arbitration.

What is Arbitration?

- Arbitration is a procedure in which a dispute is submitted, by agreement of the parties, to one or more arbitrators who make a binding decision on the dispute. In choosing arbitration, the parties opt for a private dispute resolution procedure instead of going to court.

Principal characteristics of Arbitration:

- Arbitration can only take place if both parties have agreed to it. In contrast to mediation, a party cannot unilaterally withdraw from arbitration.

- Under the World Intellectual Property Organization (WIPO) Arbitration Rules, the parties can select a sole arbitrator together. If they choose to have a three-member arbitral tribunal, each party appoints one of the arbitrators; those two persons then agree on the presiding arbitrator.

- In addition to their selection of neutrals of appropriate nationality, parties are able to choose such important elements as the applicable law, language and venue of the arbitration. This allows them to ensure that no party enjoys a home court advantage.

- The WIPO Rules specifically protect the confidentiality of the existence of the arbitration, any disclosures made during that procedure, and the award. In certain circumstances, the WIPO Rules allow a party to restrict access to trade secrets or other confidential information that is submitted to the arbitral tribunal or to a confidentiality advisor to the tribunal.

- The decision of the arbitral tribunal is final and easy to enforce. Under the WIPO Rules, the parties agree to carry out the decision of the arbitral tribunal without delay. International awards are enforced by national courts under the New York Convention, which permits them to be set aside only in very limited circumstances.

Disadvantages of Arbitration

- **Inability to Appeal:** As a general and practical rule, the arbitrator's decision cannot be appealed. Only in certain limited situations, such as when the arbitrator exceeded his or her authority or upon proof of corruption, fraud or undue influence, will an arbitrator's decision be reviewed by a district court. This can be especially troubling given that an arbitrator generally has more discretionary and decision-making power than a judge or jury. Therefore, the binding nature of the decision and the general lack of ability to seek recourse from an incorrect decision make the consequences of the arbitration more profound.

- **Lack of Formal Discovery:** Although the lack of a full fledge formal discovery process in arbitration proceedings may result in decreased costs, it can also mean that the parties (or one party in particular) may not have all of the information necessary to fully evaluate the case. Therefore, a party may present its case to an arbitrator without being privy to all of the pertinent facts that could have been revealed had more formal discovery, such as interrogatories, requests for production and depositions, been conducted.

- **Discretion of the Arbitrator:** An arbitrator may make his or her decision without issuing any written opinion or explanatory statement. Furthermore, since arbitrations are private and so infrequently reviewed by courts, the lack of transparency in the decision-making process may leave room for bias in arbitration proceedings.

- **Rising Costs:** Although arbitrations are typically going to be less expensive than litigation, the cost of arbitration is on the rise, making arbitration often more expensive than other ADR proceedings.

⊙ CONCLUSION

- The benefits of institutional arbitration will be manifold for the Government and its agency and to the parties to a dispute and will result in quality experts being available in India and also an advantage in terms of cost incurred.

- It will facilitate India becoming a hub for institutional arbitration as well as positively impact the Indian economy and doing business in India.

International Arbitration Centre

GS SCORE
Learning Aid

Context

The Lok Sabha has passed the **New Delhi International Arbitration Centre** Bill, aimed at establishing an independent and autonomous body for institutionalized domestic and international arbitration

Why need for it was felt?

India feels current arbitration centres are biased towards the western countries and China. Govt found it hard to get judgements in its favour

What will the NDIAC do?

Conduct arbitration, mediation and conciliation proceedings. Permanent panel of arbitrators to mediate

Key features of the Bill

The Bill seeks to provide for the establishment of the NDIAC to conduct arbitration, mediation, and conciliation proceedings

It declares the NDIAC as an institution of national importance

seeks to transfer the existing ICADR (International Centre for Alternate Dispute Resolution) to the central government. Upon notification by the central government, all the rights, title, and interest in the ICADR will be transferred to the NDIAC

A representative from a recognised body of commerce and industry, appointed as a part-time member, on a rotational basis

2 eminent persons

Composition : 7 members

3 ex-officio members

(including a nominee from the Ministry of Finance and a Chief Executive Officer)

(having substantial knowledge and experience in institutional arbitration)

Chairperson

(who has been a Judge of the Supreme Court or a High Court, or an eminent person with special knowledge dan experience in the conduct or administration of arbitration)

Term and superannuation

⇩

The members of NDIAC will hold office for three years and will be eligible for re-appointment. The retirement age for the Chairperson is 70 years and other members are 67 years.

Institutional support
NDIAC will establish a Chamber of Arbitration which will maintain a permanent panel of arbitrators. Further, the NDIAC may also establish an Arbitration Academy for training arbitrators and conducting research in the area of alternative dispute resolution.

Finance and audit
The NDIAC will be required to maintain a fund which will be credited with grants received from the central government, fees collected for its activities, and other sources. The accounts will be audited by CAG

Significance

The dispute resolution process has a huge impact on the economy and doing business in a country.

The B N Srikrishna committee had lamented that the International Centre for Alternative Dispute Resolution (ICDAR) in Delhi had only conducted 22 arbitrations in 23 years

The huge pendency of cases in courts further underlines the need for strengthening the Alternative Dispute Resolution mechanism.

There is a need for expeditious settlement of disputes

Hence, this will inspire confidence and credibility among the litigants of commercial disputes

Also, NDIAC aims to turn India into an alternative destination to Singapore for international arbitration

BOTTOMLINE

The benefits of institutional arbitration will be manifold for the Government and its agency and to the parties to a dispute and will result in quality experts being available in India and also an advantage in terms of cost incurred. It will facilitate India becoming a hub for institutional arbitration as well as positively impact the Indian economy and doing business in India.

THE AADHAAR AMENDMENT

CONTEXT

- **The Lok Sabha recently passed the Aadhaar and Other Laws (Amendment) Bill, 2019, allowing voluntary use of Aadhaar as an identity proof for opening bank accounts and procuring mobile phone connections.**

- **While Aadhaar has provided a single identity platform to reap all sorts of benefits, it has not escaped its fair share of criticism.**

⊙ BACKGROUND

- The Aadhaar card discloses the holder's name, father's name, date of birth, residential address. This implies that the Aadhaar platform does not reveal any information related to holder's medical records, caste, religion or community.

- Legally speaking, Aadhaar is voluntary and informed consent of the biometric identity holder had to be obtained before it is used.

- States has been using Aadhaar as an enabler for providing deserving section of the society their "right to food, right to livelihood, right to receive pension and other social assistance benefits".

The Unique Identification Authority of India (UIDAI)

- It is a **statutory authority** established under the provisions of the Aadhaar (Targeted Delivery of Financial and Other Subsidies, Benefits and Services) Act, 2016 **("Aadhaar Act 2016").**

- UIDAI was created with the objective **to issue Unique Identification numbers (UID)**, named as "Aadhaar", **to** all **residents of India**.

Under the Aadhaar Act 2016, UIDAI is responsible for :

- Aadhaar enrolment and authentication, including operation and management of all stages of Aadhaar life cycle.

- Developing the policy, procedure and system for issuing Aadhaar numbers to individuals

- Perform authentication

- To ensure the security of identity information and authentication records of individuals.

- UIDAI does not have information about bank accounts, shares, mutual funds, financial and property details, health records, family, caste, religion, education, etc.

- Aadhaar is only for residents of India. NRIs are not eligible to get Aadhaar.

- If any government official of a department denies the benefits or services for lack of Aadhaar or failure of verification for technical reasons contrary to the relevant notification, a complaint should be lodged against the higher authorities of those departments for such unlawful denials.

⊙ ANALYSIS

- With respect to Aadhaar analysis, there are multiple angles to cover.

SC's Aadhaar verdict - Privacy vs. Identity

- In its 2018 judgment, the Supreme Court noted that Aadhaar does not create surveillance state.

- There needs to be balancing of two competing fundamental rights, right to privacy on the one hand and right to food, shelter and employment on the other hand. If one looks closely, both the rights are founded on human dignity.

- However, there are chances that use of Aadhaar numbers, under Section 57, will lead to commercial exploitation of the personal data of individuals without consent and could also lead to individual profiling.

What rationale did the Supreme Court weighed in while nullifying Privacy infringement claims?

- An individual while interacting with society reveals information, like name, age, date of birth and residential address, which is also sought under Aadhaar.

- Therefore, there can be "no reasonable expectation of privacy" in giving such data.

Aadhaar and Security concerns:

- Recently, the controversy around Aadhaar and security concerns, captured centre stage after a French security researcher pointed the flaws in the mAadhaar app that is available on the Google Play Store.

- In 2017, an IIT graduate was arrested for illegally accessing the Aadhaar database without authorization.

- He created an app called 'AadhaareKYC' by hacking into the servers related to an 'e-Hospital system'

that was created under the Digital India initiative. The eKYC app would then route all the requests through those servers.

- Centre for Internet and Society (CIS) pointed out that about 130 million Aadhar numbers along with other sensitive data were available on the internet.

- The reason for the data leak was narrowed down to four government-run schemes ranging from National Social Assistance Programme by the Ministry of Rural Development, the National Rural Employment Guarantee Act (NREGA), also by the Ministry of Rural Development, Daily Online Payment Reports under NREGA by the government of Andhra Pradesh and the Chandranna Bima Scheme, also by the government of Andhra Pradesh.

Misuse of Aadhaar

- A report from a year ago demonstrated that several parties illegally tried to store the biometric data and conduct multiple transactions using the same fingerprint. UIDAI detected the problem when it found multiple transactions done using the same fingerprint.

- UIDAI suspended the eKYC license of Bharti Airtel and Airtel Payments Bank after they violated the Aadhaar Act which barred the company from opening bank accounts of their customers without undertaking any informed consent from them.

Aadhaar ID provides dignity to marginalized

- Aadhaar has benefited a common person in innumerable ways. Foremost is with a credible identity.

- They are using Aadhaar to prove their identity to get jobs, open bank accounts, for rail travel, and to get various entitlements & government benefits directly into their bank accounts without middlemen.

Aadhar and private entities

- In September 2018, the five-judge Constitution Bench of the Supreme Court stated that private entities, like telecom companies, banks and payment service providers cannot demand Aadhaar data from their customer. These entities cannot store Aadhaar related data of their customers.

Data Localization and the Aadhaar platform:

- Data localization laws refer to regulations that dictate how data on a nation's citizens is collected, processed and stored inside the country.

- Currently, the only mandatory rule on data localization in India is by the Reserve Bank of India for payment systems.

- Other than this, there are only reports or drafts of bills that are yet to be signed into law.

Analysis of the current Aadhaar bill passed in the Lok Sabha

- **Pros:**
  - The bill would enable the UIDAI to have a more robust mechanism to serve public interest and act as a deterrent against the misuse of Aadhaar.
  - No individual shall be compelled to provide proof of possession of Aadhaar number for the purpose of establishing his identity, unless it was so provided by a law made by the Parliament.
  - The bill allows the use of the 12-digit Aadhaar number and its alternative virtual identity to conceal the actual Aadhaar number of an individual.
  - The Bill also provides the option to the children, who are Aadhaar number holders, to cancel it on attaining adult age.

- **Cons:**
  - The bill provides legal backing for voluntary seeding of biometric Aadhaar ID with mobile numbers and bank accounts. Concerns over breach of privacy have not been properly addressed.

Data collection and Sri Krishna Committee and its relevance with Aadhaar

- The Srikrishna Committee has suggested certain amendments in Aadhaar Act.

- It has suggested amendments to the Aadhaar Act to provide for imposition of penalties on data fiduciaries and compensations to data principals for violations of the data protection law.

- The report has proposed penalties for violations, criminal proceedings, setting up of a data authority, provision of withdrawal of consent and concept of consent fatigue.

- The report suggests amendments to the Aadhaar Act from a data protection perspective.

## Way forward: The Future Of Aadhaar

- There's no escaping Aadhaar- it is now mandatory for filing tax returns and availing government subsidies.

- The Aadhaar Act and its regulations will need to be amended to account for the apex court's conclusions with respect to private entities and data privacy norms.

Aadhaar's effectiveness has been realized on the following doctrines:

- One, a range of possible alternatives to the measure employed by the government must be identified.

- Two, the effectiveness of these measures must be determined individually.

- Three, the impact of the respective measures on the right at stake must be determined.

- Four, an overall judgment must be made as to whether in light of the findings of the previous steps; there exists an alternative which is preferable.

- For a vast and varied demography like India, Aadhaar is a necessary platform. It cannot be wished away.

- What is required is to diligently iron out hurdles and keep it clean from all sorts of identity or breach mess.

Practice Question

- Aadhaar has benefited a common person in innumerable ways but it has also raised questions on identity breach and data thefts. Analyze efficacy of recently passed Aadhaar bill in the Lok Sabha on these counts.
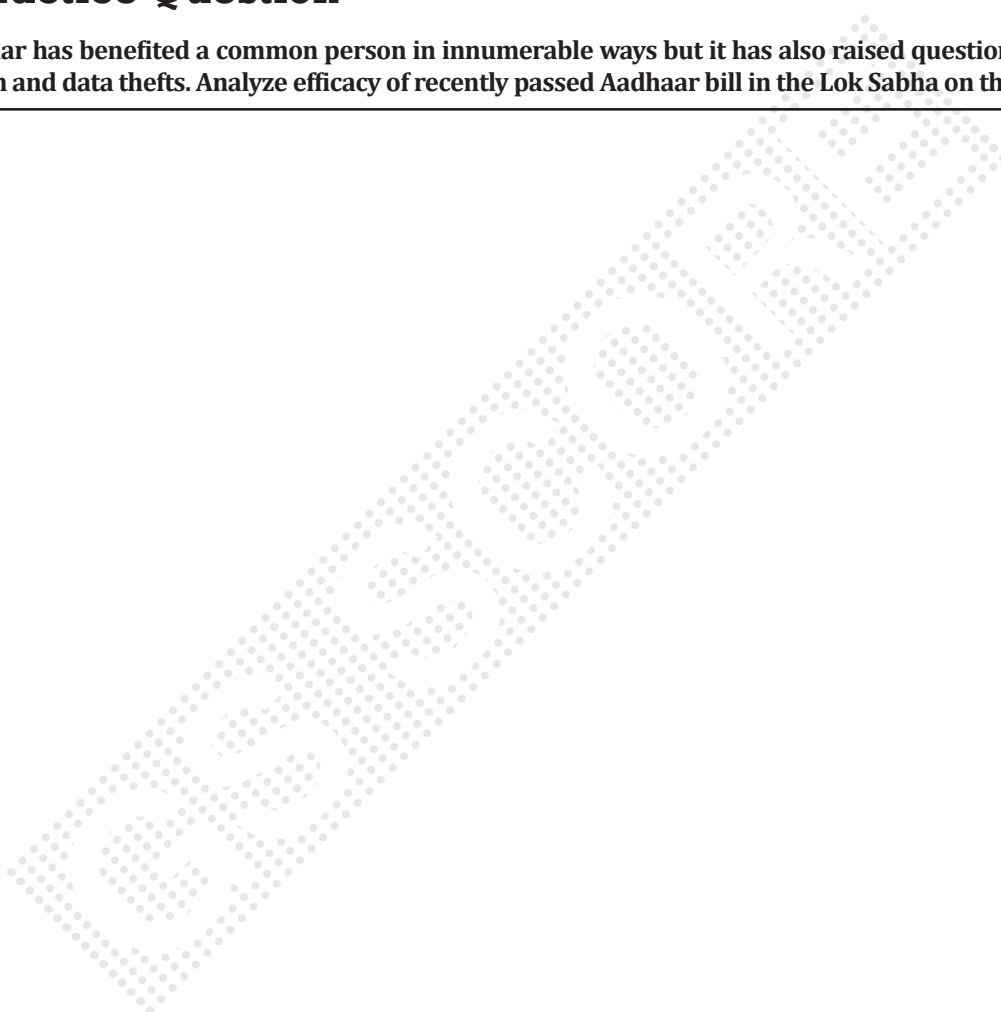
The Aadhar Amendment

CONTEXT : The Lok Sabha recently passed the **Aadhaar a**nd Other Laws (Amendment) **Bill, 2019**, allowing <u>voluntary</u> use of Aadhaar as an identity **proof** for opening bank accounts and procuring mobile phone connections

GS SCORE *Learning Aid*

The bill was introduced to align with the SC verdict on Aadhar ☞

↓

In its 2018 judgment, the Supreme Court noted that Aadhaar **does not create surveillance state**

↓

An individual while interacting with society reveals information, like name, age, date of birth and residential address, which is also sought under Aadhaar

↓

Therefore, there can be "no reasonable expectation of privacy" in giving such data.

↓

However, there are chances that use of Aadhaar numbers, will lead to commercial exploitation of the personal data of individuals without consent and could also lead to individual profiling

The Aadhaar judgement in four points

1 Aadhaar is constitutional
2 It is mandatory only to access social welfare services
3 Meets the privacy test
4 Key to targeted distribution of subsidies

The Supreme Court has ruled that Aadhaar can only be mandatory for availing services that are aimed at social welfare. A look at which services now require Aadhaar and which don't:

MANDATORY FOR
Central and state govt welfare schemes (PDS, LPG, MGNREGA, etc.)
Filing income tax returns
Linking with PAN

NOT MANDATORY FOR
- Opening bank accounts
- Mobile and internet connections
- School admissions
- Enrolling for courses, exams conducted by CBSE and UGC
- Private companies offering investment in mutual funds, insurance policies, etc.
- Private companies/websites offering air and rail travel, movie tickets, etc.

There needs to be a balancing between →
FRs & Right to privacy
right to food, shelter and employment

About the Amendment

The bill allows the use of the 12-digit Aadhaar number and its alternative virtual identity to conceal the actual Aadhaar number of an individual

No individual shall be compelled to provide proof of possession of Aadhaar number for the purpose of establishing his identity, unless it was so provided by a law made by the Parliament

The Bill also provides the option to the children, who are Aadhaar number holders, to cancel it on attaining adult age

The amendment would enable the UIDAI to have a more robust mechanism to serve public interest and act as a deterrent against the misuse of Aadhaar.

Sri Krishna Committee and its relevance with Aadhaar

suggests amendments to the Aadhaar Act from a data protection perspective

penalties for violations, criminal proceedings

suggested amendments to the Aadhaar Act

proposed

setting up of a data authority

to provide for imposition of penalties on data fiduciaries

compensations to data principals for violations of the data protection law

provision of withdrawal of consent and concept of consent fatigue.

BOTTOMLINE
There's no escaping Aadhaar- it is now mandatory for filing tax returns and availing government subsidies. Besides, Aadhaar has benefited a common person in innumerable ways. Foremost is with a credible identity. They are using Aadhaar to prove their identity to get jobs, open bank accounts, for rail travel, and to get various entitlements & government benefits directly into their bank accounts without middlemen

COMMERCIAL SURROGACY

CONTEXT

- **Union Cabinet approved the introduction of the Surrogacy (Regulation) Bill, 2019 that prohibits commercial surrogacy and allows surrogacy services only for married Indian couples who have no children.**

- **The bill shall apply to the entire country except for Jammu and Kashmir.**

What is Surrogacy?

- It is a method or agreement whereby a woman agrees to carry a pregnancy for another person or persons, who will become the new-born child's parent(s) after birth.

- Intended parents may seek a surrogacy arrangement when either pregnancy is medically impossible, pregnancy risks present an unacceptable danger to the mother's health or is a same sex couple's preferred method of having children.

- Commercial surrogacy refers to any surrogacy arrangement in which the surrogate mother is compensated for her services beyond reimbursement of medical expenses.

◉ BACKGROUND

- India has been a preferred destination for those wanting a surrogate child.

- The cheap availability of the service enables an overuse of the practice with commissioning parents arriving from various other countries as well.

- In 2002, the Indian Council of Medical Research (ICMR) laid out guidelines for surrogacy, which made the practice legal, but did not give it legislative backing.

- A study conducted in July 2012, backed by the UN, put the surrogacy business at more than $400 million with more than 3000 fertility clinics all over the country.

- There have been several reports about the exploitation of surrogate mothers, who are confined to "hostels" during pregnancy and not allowed to meet their families and women who do it repeatedly for a paltry amount, putting their own bodies at risk.

- Assisted Reproductive Technology (ART) Bill, 2014 talks about banning commercial surrogacy and restricted surrogacy for "Infertile Indian couple" only.

- However, Indian couple definition includes OCI, PIO, NRI or foreign nations who have married to Indian.

- All married and single women are allowed to be surrogate mother. The surrogate mother shall be of age in between 23-35 years; she must have at least her own children not less than 3 years and not allowed to born more than one successful surrogate child.

◉ ANALYSIS

Why ban of Commercial Surrogacy in India?

- It includes sale and purchase of human embryo and gametes.As an extension of this, some have even described it as modern-day slavery and a mockery of motherhood.

- It is exploitative in nature- emotionally, financially and morally. In India, the surrogate receives approximately 20 % (or less) of the total cost.

- Foreign nationals, who want to escape tough surrogacy laws in their own countries, come to India in search of poor vulnerable women, who can be used for renting their wombs to produce a baby for a petty amount of money very easily in the absence of regulations.The global surrogacy trade, however, has been fraught with scandals.

- This type of surrogacy focuses on the needs of the client especially India where surrogate mothers are offered preterm childbirth through cesarean surgeries in order to accommodate clients' availability to take time off from work.

Downsides of banning commercial surrogacy

- Ban has slowed a brisk global trade in Indian working-class women's reproductive capacities that is estimated to have garnered anywhere from $400 million to $1 billion per year.

- The baby tradedoes not stop with bans on commercial surrogacy. Instead, infertility clinics jump through legal loopholes by moving surrogate mothers across borders. These movements expose surrogate mothers to great risks.

- As a result, the women are powerless to terminate their contracts, or go back home if they choose to do so. They are isolated from friends and family

and have no legal recourse to address financial abuses or medical malpractice.

Surrogacy (Regulation) Bill, 2019

- **Pros of the bill**
  - ➤ It proposes to regulate surrogacy in India by establishing National Surrogacy Board at the central level and State Surrogacy Boards and Appropriate Authorities in the State and Union Territories.
  - ➤ It will regulate the surrogacy services in the country.
  - ➤ It prohibitscommercial surrogacyand allows ethical surrogacyfor needy infertile Indian couples.
  - ➤ It prohibitsexploitation of surrogate mothers and protects the rights of children born through surrogacy
  - ➤ This bill makes the service available only to married Indian couples who have been medically found to be infertile and it won't be permitted for live-in partners or single parents.
  - ➤ It allows only close Indian relatives to be surrogate mothers and purely for "altruistic" reasons. It states an Indian infertile couple, married for five years or more, can go in for 'altruistic surrogacy' where the surrogate mother will not be paid any compensation except medical expenses and insurance.
  - ➤ All surrogacy clinics will have to be registered and the surrogate mother cannot be paid directly

- **Concerns with the bill**
  - ➤ It sets no rules as to how much compensation a surrogate mother can get and should get. This is like "forced labour" because non-payment of any compensation is against Article 23 of the Constitution of India.According to the Centre for Social Research (CSR) report, surrogate mothers are paid $4000-$5000 for bearing the child.
  - ➤ However, clinics charge double money from the adoptive parents. The reason driving the mothers to surrogacy is usually poverty and lack of education, which further ensures their inability to challenge the exploitation.
  - ➤ Supreme Court has recently decriminalised Section 377 and the LGBT (lesbian, gay, bisexual, transgender) community has been accepted to be a part of the mainstream. But, in this Bill, there is no mention of same sex couples.
  - ➤ There is a need to stop "fashion surrogacy" since some celebrities were opting for it as they did not want their figures destroyed.

- ➤ The bill does not define who is a close relative.
- ➤ Endorsing altruistic surrogacy will enforce emotional and social pressure on close female relatives without any compensation for immense emotional and bodily labour of gestation involved in surrogacy as well as loss of livelihood.
- ➤ Article 14 of the Constitution guarantees "equality before the law and equal protection of laws to all persons". Article 21 guarantees "protection of life and personal liberty of all persons". Restricting conditional surrogacy to married Indian couples and disqualifying others on the basis of nationality, marital status, sexual orientation or age, does not appear to pass the test of equality and there is no connection with the intended objectives of the proposed legislation.
- ➤ Right to Life includes the right to reproductive autonomy, which includes the right to procreation and parenthood. It is not for the State to decide the modes of parenthood. Constitutionally, the State cannot interfere in the prerogative of a person(s) to have children, naturally or through surrogacy.
- ➤ No financial implications, except for the meetings of the National at Surrogacy Boards and appropriate authorities, which will be met out of the administration budgets of respective departments.
- ➤ A blanket ban on commercial surrogacy proposed in the Bill could trigger a black market for surrogacy services in India which would lead to increased exploitation with no mechanism for protection of any of the parties involved in the surrogacy arrangement.
- ➤ It could result in trafficking of surrogate mothers to foreign nations or safe surrogacy havens around the globe for monetary returns.

- **Advantages of Surrogacy**
- ◉ It allows infertile couples, single people and members of the LGBT community to become parents when they may not be able to have children otherwise.
- ◉ In most cases, gestational surrogacy allows one or both parents to be biologically related to their child.
- ◉ It gives hopeful parents the opportunity to raise a child from birth.
- ◉ Intended parents may face fewer restrictions with surrogacy than with adoption; those who cannot adopt due to agency restrictions on factors like age can still pursue surrogacy.
- ◉ Surrogates have already carried other pregnancies and have a proven uterus, increasing their chances

of successfully carrying a surrogate pregnancy. This may make surrogacy more likely to be successful than fertility treatments for intended parents.

◉ Surrogacy gives intended parents more control and peace of mind throughout the pregnancy than they usually have with fertility treatments or adoption.

● **Is Surrogacy ethical?**

◉ There had been many cases of death related to surrogacy which neither commissioning parents nor the doctors were ready to take responsibility of.

◉ Pregnancy and child birth may pose some medical risks to the mother, but a surrogate inherits these risks and others while the intended mother's or parents' health, especially in the case of male homosexual couples, is uncompromised.

◉ Sometimes, Indian adoption laws or citizenship laws of some other countries also create problems. For example, Germany gives citizenship by mother; this creates issues in determining the nationality of child.

◉ There were no strong laws for following issues such as rights of surrogate mother for fair compensation, maternal health care, right to abort etc.

◉ Commercial surrogacy arrangements involve a woman giving birth to a child that is not hers for money. Sometimes surrogacy is described as akin to "baby selling" or "womb renting," which in some ways is an accurate description.

◉ Homosexuals and single parents are not allowed to go for surrogate mothers.

◉ There had been few cases in which commissioning parents left surrogate mother because they did not like the surrogated child.

◉ There have been instances where poor girls and women were forced to become surrogate.

◉ There were no rules for medical insurance for issues that could arise in the pregnancy or later, and also the insurance to cover the child's upbringing if the surrogate mother is abandoned by the legal parents.

◉ The research states that clinics do not provide the mother with a copy of the contract that is signed by the adoptive parents. In order to escape social stigma, pregnant women often stayed in shelter homes that provided them with lesser security and assistance than required.

◉ ICMR guidelines (2005) did not set accountability within the agencies indulged in providing surrogate mothers; they did not properly address the issues of sex selection.

⊙ **WAY FORWARD**

◉ In India, people are practicing surrogacy when nearly 12 million several children are orphans. Adoption of a child in India is a complicated and a lengthy procedure for those childless couples who want to give a home to these children. Hence, they are forced to opt for IVF (in-vitro fertilisation) or surrogacy.

◉ There is a strong need to modify and make the adoption procedure simple as an alternative to surrogacy.

◉ Surrogacy industry in India is fully grown today. Banning it at this stage may create implementation challenges and push the business underground.

◉ Policy-level intervention is a welcome step. However, a ban on commercial surrogacy will not provide a solution to these issues.

◉ A proper law with strict regulations and enforcement which would address the concerns of all stakeholders in the industry is required.
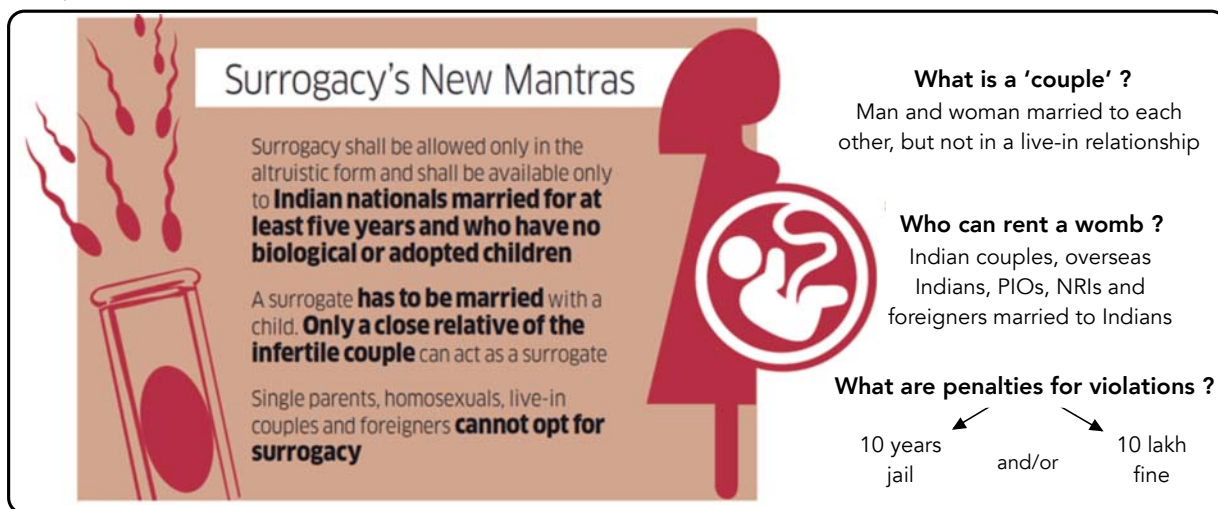
Practice Question

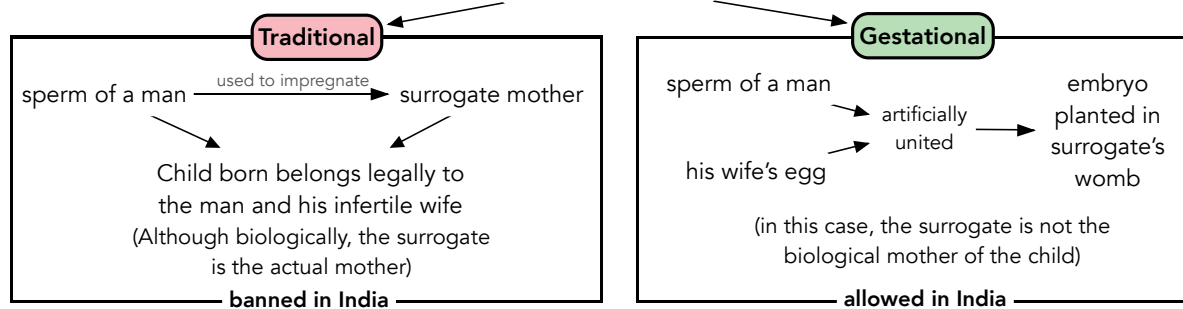◉ **Recently, Lok Sabha passed the Surrogacy (Regulation) Bill, 2019. Discuss the pros and cons of the bill.**

Commercial Surrogacy
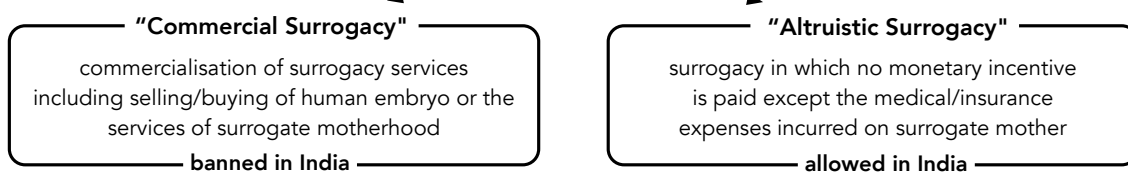
GS SCORE
Learning Aid

Context : Union Cabinet approved the introduction of the **Surrogacy (Regulation) Bill, 2019** that prohibits **commercial surrogacy** and allows surrogacy services only for married **Indian couples** who have no children.

Surrogacy's New Mantras

Surrogacy shall be allowed only in the altruistic form and shall be available only to **Indian nationals married for at least five years and who have no biological or adopted children**

A surrogate **has to be married** with a child. **Only a close relative of the infertile couple** can act as a surrogate

Single parents, homosexuals, live-in couples and foreigners **cannot opt for surrogacy**

What is a 'couple' ?
Man and woman married to each other, but not in a live-in relationship

Who can rent a womb ?
Indian couples, overseas Indians, PIOs, NRIs and foreigners married to Indians

What are penalties for violations ?
10 years jail — and/or — 10 lakh fine

Types of surrogacy

Traditional

sperm of a man —used to impregnate→ surrogate mother

Child born belongs legally to the man and his infertile wife
(Although biologically, the surrogate is the actual mother)

— **banned in India** —

Gestational

sperm of a man → artificially united → embryo planted in surrogate's womb
his wife's egg →

(in this case, the surrogate is not the biological mother of the child)

— **allowed in India** —

However, according to the passed bill only 'altruistic surrogacy' is permitted and not 'commercial surrogacy'.

"Commercial Surrogacy"

commercialisation of surrogacy services including selling/buying of human embryo or the services of surrogate motherhood

— **banned in India** —

"Altruistic Surrogacy"

surrogacy in which no monetary incentive is paid except the medical/insurance expenses incurred on surrogate mother

— **allowed in India** —

The bill has tried to ensure this through ties of kinship whereby surrogacy by close relative would ensure that the close relative is not exploited or lured by money

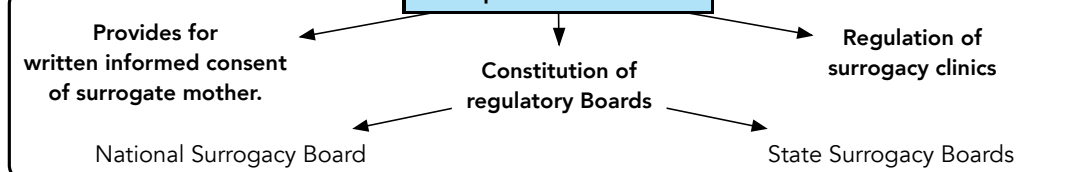**Care of surrogates** – Reasonable expenses like medical bills have not been accommodated in the Bill.

Definition of Close Relative – This is bit ambiguous and strangers can be put up as close relative and can lead to exploitation and misuse.

Concerns

NOT FOR RENT NOT FOR SALE

Other provisions in the bill

Provides for written informed consent of surrogate mother.

Constitution of regulatory Boards
- National Surrogacy Board
- State Surrogacy Boards

Regulation of surrogacy clinics

SECTION: B
(PRELIMS)

CURRENT AFFAIRS

CORAL REHABILITATION PROGRAM IN INDIA

⊙ **CONTEXT**

- **The National Centre for Coastal Research's (NCCR) proposal of dropping 'melted plastic rocks or slabs' on the seabed for growing coral reefs and address the problem of disposal of plastic waste has drawn criticism from the Gulf of Mannar (GoM) Marine National Park, which has been implementing coral rehabilitation programme since 2002.**

⊙ **ABOUT:**

- Coral reefs and seagrasses are important for biodiversity and livelihood but they are fast degrading owing to climatic and non-climatic factors.

- The impacts of climate change since 1998 and the effects of non-climatic factors, mainly destructive fishing practices, mining, pollution, and coastal development, have altered the community structure and health of corals and seagrasses. Lowtech and low-cost transplantation techniques have been successfully standardized and implemented in the Gulf of Mannar, southeast India.

- A coral rehabilitation technique, perfected in 2002, comprising selection of site, identification of suitable native species, precision in fragmentation, choosing fragment size, fixing positions, and effective monitoring protocols, resulted in good growth and a survival of 80.1%.

The Gulf of Mannar Marine National Park:

- The Gulf of Mannar (GoM) on the southeast coast of India is one of the four major coral reef areas in India with 117 corals species

- The coral reefs in GoM are formed primarily around the 21 uninhabited coral islands that occur between Rameswaram and Tuticorin.

- This area was declared as Gulf of Mannar Marine National Park by the Government of Tamil Nadu in 1986.

- For management purposes, the 21 islands of GoM have been put under three groups: Tuticorin group, Keelakarai group, and Mandapam group.

- GoM was once considered a biological paradise, but various human activities have put the ecosystem under stress with several biological resources dwindling. Coral mining, destructive fishing methods, climate change, and pollution have caused severe damage to the ecosystems of coral reef and seagrass.

- Massive corals were also used for the construction of building and roads during the 1960s.

Kariyachalli and Vaan islands in Gulf of Mannar:

- The Gulf of Mannar Marine National Park has proposed to cover one sq km of area in Kariyachalli and Vaan islands in Thoothukudi group in Gulf of Mannar for rehabilitation of coral reefs.

- Vaan is one of the 21 islands in the Gulf of Mannar, which was declared a marine biodiversity park in 1986.

- The GoM Marine National Park had been implementing the corral rehabilitation programme since 2002 and had so far covered eight sq km areas in GoM region, where coral reefs suffered bleaching and degradation due to climate change and high temperature.

- The rehabilitation programme, employing 'concrete frame slabs' method, would be launched after getting government approval.

- As the sea would be rough during the southwest monsoon season, they would commence the insertion of slabs after the end of the season.

- Proposal to drop around 200 concrete frames, tied with live corals around the two islands, where coral reef degradation and bleaching were noticed.

- Corals would start growing in 60 days using the concrete frames as sub-state. The acropora coral species would grow by 10 to 12 cm per year.

Why criticism?

- Suggestion from NCCR came that plastic waste materials could simply be wound around as hard substrates as a way of disposing of them and help build coral colonies.
- With International examples such as use of Worn out tyres were tried as artificial reefs in Florida and Costa Rica, but they turned out to be catastrophic.
- NCCR's idea would turn the reefs into graveyards as Corals in the GoM are already stressed and bleached under climate change
- The structures might look useful initially, but would destroy corals lately.
- Tamil Nadu deploying artificial reefs to save sinking islands:
- Sinking islands may become a reality with sea level rise and climate change in decades to come. Tamil Nadu has hit upon a novel idea to protect such islands on its coast— deploying artificial reefs near vulnerable islands.
- Artificial reefs, made of concrete, have been found capable of preventing further erosion of ecologically sensitive islands and regenerating coral biodiversity in the Gulf of Mannar.
- It is the first attempt in India to protect and restore a sinking island. Deployment of artificial reefs parallel to the sinking island in the seaward side reduces the effect of currents and waves, enhances fish habitats for higher fish production and protection of fish diversity.
- Natural corals get attached to artificial reefs over time and start regeneration.
- Following the success in Vaan, Tamil Nadu has proposed to undertake restoration of two more islands and has approached Green Climate Fund for funding of Rs 100 crore.

- Concrete slab frame construction: A concrete slab is a common structural element of modern buildings, consisting of a flat, horizontal surface made of cast concrete. Steel-reinforced slabs, typically between 100 and 500 mm thick, are most often used to construct floors and ceilings, while thinner mud slabs may be used for exterior paving.

CORAL REEFS

⊙ **CONTEXT:**

- **Lawmakers in the US Virgin Islands have passed a bill banning the retail use of sunscreens and 10 personal-care products that contain toxic chemicals harmful for marine environment and ecosystems. The ban becomes effective by January 1, 2021.**

⊙ **ABOUT:**

More on news:

- Humans use sunscreens as a first line of defence against skin cancer but concerns have been raised for their effect on endocrine and reproductive systems of fishes and increases coral bleaching (when these animals turn white because of stress resulting from changes in the environment) and damage the polyps' DNA.
- The ban will help protect coral, marine life as well as human health.
- In addition to environmental and human harm, tourism-based economies will experience financial devastation if coral and marine life dies off. This ripple effect would be huge.

⊙ **BACKGROUND**

- Coral reefs are vital for the health of underwater ecosystems. One-quarter of ocean species depend on reefs for food and shelter.

- Over the past three years, one-fifth of the world's coral reefs have died off — and there is a growing awareness that sunscreen is playing a role.

- From 6,000 to 14,000 tons of sunscreen slide off of humans into coral reef areas each year, exposing the gorgeous underwater ecosystems to chemicals that can kill them.

- In recent years researchers have documented unprecedented levels of coral bleaching. In a 2017 study, National Oceanic and Atmospheric Administration scientists found that 56 % of the Big Island's coral was bleached, as was 44 % of West Maui's corals, and 32 % of Oahu's reefs.

Why this ban?

- Sunscreens are widely used to protect skin from harsh rays of sun. According to a 2015 study, published in journal Archives of Environmental Contamination and Toxicology, chemicals in a single drop of sunscreen are enough to damage fragile coral reef systems.

- However, those with toxic ingredients, oxybenzone or octinoxate (these are chemical ultraviolet (UV) filters that absorb harmful rays and help prevent skin cancer), cause death among developing corals and increase coral bleaching even at temperatures below 31 degrees Celsius.

- The presence of these chemicals in the waters can also cause genetic damage to corals, reduce their ability to cope with climate change as well as induce neurological behavioural changes in fish threatening their populations.

- According to various scientific studies, the chemicals also appear to cause disruptions in corals' endocrine system, which can induce feminisation in adult male fish and increase reproductive diseases.

Why this ban is not useful?

- Banning sunscreen will not solve other problems: for example, temperature anomalies, overfishing, coral predators and the big issue of coastal runoffs that pollute and destroy reefs

Recent cases

- Popular beaches and critical coral reef areas throughout the Virgin Islands, including Trunk Bay, Hawksnest Bay and Buck Island have all been detected with high levels of the toxic chemicals.

- The Caribbean has already lost more than 80 % of its coral due to a variety of issues. Studies have shown that these chemicals are at 40 plus times acceptable levels in some territory waters.

- Hawaii Island state became the first in the nation to prohibit sunscreens that contain oxybenzone and octinoxate, which are endangering coral reefs.

- In February 2019, Key West, Florida, banned the sale of sunscreens containing oxybenzone and octinoxate in an effort to protect coral reefs from bleaching and death.

Way Ahead

- For now consumers who want to protect their skin without harming corals need to look for "reef-safe" products that are biodegradable, contain mineral sunblock's with zinc oxide and titanium dioxide instead of chemical blockers, and without nanoparticles and thus designated "non-nano".

DEEP SEA MINING

⊙ **CONTEXT:**

- **According to a report by Greenpeace, deep sea mining is threatening international waters. It also questions the role of International Seabed Authority's (ISA).**

⊙ **ABOUT:**

More on News:

- Only 1% of international waters are properly protected from multiple industrial activities in the absence of a global ocean treaty.

- This report stressed on the fact that if deep sea mining continues on a large scale without any proper protection,it can ruin species and ecosystem.

- If the ecosystem under the sea is devastated, it is not clear if it can be restored. The report cited examples of cold water coral reefs devastated by bottom trawling in the 1960s.

Threats from deep sea mining

- Deep sea mining causes environmental harm, both at the mine sites and beyond.

- It undermines progress towards UN Sustainable Development Goal (SDG) 12, which aims to ensure sustainable consumption and production patterns of energy and resources, as well as SDG 14, which aims to conserve and sustainably use the oceans, seas and marine resources.

- Greenpeace accused ISA of lobbying for a weaker Global Ocean Treaty.

- Deep sea mining is regulated by the ISA, but ISA is unable to conserve deep sea environments from cumulative stresses or protect marine life in the broader ocean. This highlights the need for governments to agree a strong Global Ocean Treaty at the UN, to put protection at the heart of managing international waters.

- The ISA has never yet turned down a licence application, even to explore places of high ecological significance like the Lost City near the Mid-Atlantic Ridge, which has been identified as an ecologically important area under the UN Convention on Biological Diversity and which meets criteria for UNESCO World Heritage status.

- The ISA has consistently sided with development of deep sea mining over marine protection, and is used by mining companies seeking to exploit the seabed as an avenue to gain diplomatic support from governments.

International Seabed Authority (ISA)

- The ISA was established in 1982 by United Nations Convention on the Law of the Sea(UNCLOS) and is an autonomous intergovernmental body with 167 members. The ISA is responsible for the mineral resources and the marine environment in the Area.

- The ISA considers applications for exploration and exploitation of deep sea resources from contractors, assesses environmental impact assessments and supervises mining activities in the 'Area'.

- It has granted 29 exploration contracts for industrial-level mining of poly-metallic nodules, sulphides and cobalt-rich ferromanganese crusts.

- These contracts are spread over around a million square kilometres of the international seabed. Countries sponsoring these activities include United Kingdom, China, France, Belgium, India, Germany and Russia.

Greenpeace

- It is a non-profit organisation, with a presence in 40 countries across Europe, the Americas, Asia and the Pacific. To maintain its independence, it does not accept donations from governments or corporations but relies on contributions from individual supporters and foundation grants.

- It has been campaigning against environmental degradation since 1971 when a small boat of volunteers and journalists sailed into Amchitka, an area north of Alaska where the US Government was conducting underground nuclear tests.

- In pursuing its mission, it has no permanent allies or enemies. It promotes open, informed debate about society's environmental choices.

- It has a general consultative status with the United Nations Economic and Social Council.

Recommendations:

- A network of marine reserves covering at least 30% of the world's oceans, and where all extractive activity is prohibited, should be established by 2030.

- Governments should agree to a strong global ocean treaty in 2020 (it is under negotiation at the UN) that allows for these reserves, and create rules and standards to protect marine life from mining.

Three forms of Deep Sea Mining have attracted the attention of companies – the mining of cobalt crusts (CRC), poly-metallic nodules, and deposits of seafloor massive sulphides (SMS) also known as Poly-metallic Sulphides.

International developments

- Canadian mining company Nautilus Minerals became the first to bring off the deep sea mining (DSM) operation. The Bismarck Sea in Papua New Guinea has been marked out as the testing ground. It is also carrying out exploration activities for Tonga, Fiji, the Solomon Islands and Vanuatu.

- Sudan and Saudi Arabia are working together to start underwater mining in the Red Sea, believed to have one of the largest polymetallic sulphide deposits in the world.

- The U.S., as a non-party to UNCLOS and ISA, has issued exploration leases on its own to Ocean Minerals Company (OMCO), a subsidiary of defence contractor Lockheed Martin, to explore for nodules in the Clarion Clipperton Zone (CCZ)

- China and South Korea has held contracts to explore SMS deposits in international waters of the Indian Ocean. Russia and France hold exploration leases on the Mid-Atlantic Ridge.

- In May 2018, 7th Annual Deep Sea mining Summit was held in London to discuss the economic landscape, growth and prospects of deep sea mining. The 8th Annual Asia- Pacific Deep sea mining summit will take place in November 2018.

RASHTRIYA VAYOSHRI YOJANA

⊙ **CONTEXT**

- **Recently, a distribution camp for free of cost distribution of 896 Physical Aid and Assistive Living devices to Senior Citizens under Rashtriya Vayoshri Yojana (RVY) and 469 Assistive Aid & Devices among Divyangjan under the CSR initiative of Power Trading Corporation of India Ltd. (PTC) Foundation was held at Noida(UP).**

⊙ **ABOUT:**

- Rashtriya Vayoshri Yojana is a 'Scheme for providing Physical Aids and Assisted-living Devices for Senior citizens belonging to BPL category' was launched in District Nellore, Andhra Pradesh on 1st April, 2017.

- This is a Central Sector Scheme, fully funded by the Central Government. The expenditure for implementation of the scheme will be met from the "Senior Citizens' Welfare Fund".

- The Scheme will be implemented through the sole implementing agency - Artificial Limbs Manufacturing Corporation (ALIMCO), a PSU under the Ministry of Social Justice and Empowerment.

Who is the beneficiary?

- The physical aids are being provided only to the senior citizens of the nation. This implies those who are aged above 60 years will get free assisted living aids and physical devices which are required for their sustainability.

- Also the govt. has selected the list of cities where the scheme will be implemented.

- The main criteria for the senior citizens to get full benefits of Rashtriya Vayoshri Yojana (RVY) scheme is that they must belong to BPL family and should hold valid BPL card issued by the concerned authority.

Eligiblity?

- Senior Citizens, belonging to BPL category and suffering from any of the age related disability/infirmity viz. Low vision, Hearing impairment, Loss of teeth and Locomotor disability will be provided with such assisted-living devices which can restore near normalcy in their bodily functions, overcoming the disability/infirmity manifested.

Various Devices supported?

- • Walking sticks
- • Elbow crutches
- • Walkers/Crutches
- • Tripods/Quadpods
- • Hearing Aids
- • Wheelchair
- • Artificial Dentures
- • Spectacles

Duration of the scheme

- The Scheme duration is for period of the 3 years ie. upto 2019-20.

Salient features of the scheme?

- Free of cost distribution of the devices, commensurate with the extent of disability/ infirmity that is manifested among the eligible senior citizens.

- In case of multiple disabilities/infirmities manifested in the same person, the assistive devices will be given in respect of each disability/impairment.

- Artificial Limbs Manufacturing Corporation (ALIMCO) will undertake one year free maintenance of the aids & assisted living devices.

- Beneficiaries in each district will be identified by the State Governments/UT Administrations through a Committee chaired by the Deputy Commissioner/District Collector.

- As far as possible, 30% of the beneficiaries in each district shall be women.

- The State Government/UT Administration/District Level Committee can also utilize the data of BPL beneficiaries receiving Old Age Pension under the NSAP or any other Scheme of the State/UT for identification of senior citizens belonging to BPL category.

- The devices will be distributed in Camp mode.

Area/Districts covered under the scheme?

- At present, a total of 325 Districts have been selected for the implementation of Rashtriya Vayoshri Yojana.

Artificial Limbs Manufacturing Corporation of India (ALIMCO)

- ALIMCO is a "Not For Profit" Central Public Sector Undertaking working under the administrative control of Ministry of Social Justice & Empowerment.
- It has been manufacturing various types of aids & appliances on mass scale to meet the requirements of the Persons with Disabilities (PwDs), across the country.
- Currently, ALIMCO has 5 Auxiliary Production Centres (AAPCs) situated at Bhubaneswar (Orissa), Jabalpur (MP), Bengaluru (Karnataka), Chanalon (Punjab) and a new production unit in Ujjain.

INDIA: HEALTH OF THE NATION'S STATES

⊙ **CONTEXT:**

- **According to Indian Council of Medical Research (ICMR) report entitled "India: Health of the Nation's States", contribution of Non-Communicable Diseases (NCDs) to total death in India was 61.8% in 2016, as compared to 37.9% in 1990.**

- **This report is a collaborative effort between the ICMR, Public Health Foundation of India, Institute for Health Metrics and Evaluation, and experts and stakeholders from about 100 institutions across India.**

⊙ **ABOUT:**

More on news:

- According to the report, in Kerala, Goa and Tamil Nadu, due to epidemiological transition, fewer deaths are recorded for Communicable, maternal, neonatal and nutritional diseases, thereby raising the share of NCDs in total deaths.

- Though public health is a State subject, Central Government supplements the efforts of the State Governments. For example:

  ◎ National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) is being implemented under the National Health Mission (NHM).

  ◎ The objectives of the programme are to promote health activities and opportunistic screening for common NCDs including cancer.

  ◎ Key components of population-based screening include community-based risk assessment, screening, referral, and follow up of all individuals of 30 years and above for common NCDs

  ◎ The initiative will help in early diagnosis and will generate awareness on risk factors of NCDs.

Steps taken by Government

- To enhance the facilities for tertiary care of cancer, the Central Government is implementing Strengthening of Tertiary Care Cancer facilities scheme to support setting up of State Cancer Institutes (SCI) and Tertiary Care Centres (TCCC) in different parts of the country.

- Oncology(the study and treatment of tumours) in its various aspects has a focus in case of new AIIMS and many upgraded institutions under Pradhan Mantri Swasthya Suraksha Yojana (PMSSY).

- Affordable Medicines and Reliable Implants for Treatment (AMRIT) outlets have been opened at 159 Institutions/Hospitals with an objective to make available Cancer and Cardiovascular Diseases drugs and implants at discounted prices to the patients.

- Jan Aushadhi stores are set up by the Department of Pharmaceuticals to provide generic medicines at affordable prices.

ICMR

- ICMR is an apex body in India for the formulation, coordination and promotion of biomedical research.

- It is one of the oldest and largest medical research bodies in the world. The ICMR is funded by the Government of India through the Department of Health Research, Ministry of Health and Family Welfare.

- The council's research priorities coincide with National health priorities such as control and management of communicable diseases, fertility control, maternal and child health, control of nutritional disorders etc.

- These efforts are undertaken with a view to reduce the total burden of disease and to promote health and well-being of the population.

Non-Communicable diseases (NCDs)

- These are also known as chronic diseases, tend to be of long duration and are the result of a combination of genetic, physiological, environmental and behaviours factors.

- The main types of NCDs are cardiovascular diseases (like heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma) and diabetes.

- NCDs disproportionately affect people in low- and middle-income countries where more than three quarters of global NCD deaths, 32million, occur.

- The 2030 Agenda for Sustainable Development recognizes NCDs as a major challenge for sustainable development.

- WHO developed a Global action plan- NCDs 2013-2020 that includes nine global targets to support countries in their national efforts.

- Risk factors for NCDs inter alia include ageing, unhealthy diet, lack of physical activity, high blood pressure, high blood sugar, high cholesterol and overweight

Epidemiologic Transition

- It is that process by which the pattern of mortality and disease is transformed from one of high mortality among infants and children to one of degenerative and man-made diseases (such as those attributed to smoking) affecting principally the elderly.

KISAN CREDIT CARD (KCC)

⊙ **CONTEXT:**
- **Kisan Credit Cards Scheme has been extended to fisheries and animal husbandry by Ministry of State for Fisheries, Animal Husbandry and Dairying**

⊙ **ABOUT:**

More on news

- The extension of KCC will include both inland and marine fisheries.

- Banks have been instructed to extend credit facilities to individual fishermen, fishermen groups, self-help groups and women self-help groups engaged in inland and marine fisheries.

- The District-Level Technical Committee would fix the scale of finance and the banks would fix the repayment period.

Purpose

- The KCC facility will meet the short term credit requirements of rearing of animals, birds, fish, shrimp, other aquatic organisms, capture of fish'

- It will prevent fishermen from taking loans from local moneylenders at exorbitant interest rates.

KCC Scheme

- KCC scheme was prepared by National Bank for Agriculture and Rural Development (NABARD) on the recommendation of R.V. Gupta committee in 1998-99 to fulfil the financial requirements of the farmers at various stages of farming through institutional credit.
- Small and Marginal farmers, share croppers, lessee and tenant farmers and self-help groups (SHGs) or Joint Liability Groups (JLGs)are eligible to get the benefits of the KCC Scheme.
- In case of credit limit above Rs. 1 lakh, beneficiary has to pledge the crops or pledge his land as mortgage.
- However, collateral security may be obtained at the discretion of bank in some cases.
- KCC is valid for 5 years subject to annual review and performance of the borrower.

Objectives of KCC Scheme

- To provide institutional credit to the farmers at the cheap rate of interest
- To provide credit at the time of requirement
- To support Post-harvest expenses
- Working capital for maintenance of farm assets and activities allied to agriculture
- Investment credit requirement for agriculture and allied activities (land development, pump sets, plantation, drip irrigation etc.)
- Consumption requirements of farmers

Who implemented this scheme?

- The KCC scheme is being implemented by the all Co-operative banks, Regional Rural Banks and public sector banks throughout the country. NABARD monitors the scheme in terms of the Cooperative Banks & RRBs and RBI in respect of Commercial Banks.
- A new feature is started in the KCC scheme by the RBI and NABARD which provides ATM card to farmers which can be used at all ATMs and point of sale terminals.

RuPay Kisan Credit Card

- RuPay is an Indian domestic card scheme conceived and launched by the National Payments Corporation of India (NPCI). It was created to fulfill the Reserve Bank of India's desire to have a domestic, open loop, and multilateral system of payments in India.
- RuPay facilitates electronic payment at all Indian banks and financial institutions, and competes with MasterCardand Visa in India.
- NABARD, in January, 2013 set up Special Project Unit- Kisan Credit Card (SPU-KCC) with a mandate for encouraging cooperative banks and Regional Rural Banks across the country to issue Rupay KCC debit cards.
- The overarching goal is to develop cash-less eco system by enabling the farming community to avail all new banking facilities at par with urban area of the country.

FOOD PROCESSING

⊙ **CONTEXT:**

- **Ministry of Food Processing Industries inaugurated Computational Modelling and Nanoscale Processing Unit at the Indian Institute of Food Processing Technology (IIFPT) in Thanjavur, Tamil Nadu.**

- **The Ministry also inaugurated a National Conference on Emerging Techniques in Food Processing.**

⊙ **ABOUT:**

More on News:

Computational Modelling and Nano-scale Processing Unit

- Modelling is a powerful tool for optimizing and improving process control over various unit operations by acquiring an in-depth understanding of the intricate transport phenomena in food systems.

- This unit will focus on the application of computational fluid dynamics in various agri-food processing applications.

- The will unit use advanced computing methods and undertakes industry and other external funded research projects in this field.

- The unit also conducts studies on Nano-level food processing, which includes strategies for nano-encapulation, nano-emulsions, nano-delivery systems, nano-packaging and other advanced applications.

- Research and development on various aspects of nanostructured foods, nano-carrier systems, nano-food additives, nano-coatings, and development of nano-sensors are under progress.

Food Grain Production in India

- Globally, India is leading in the food grain production

- Market in food is booming with an expected figure of Rs. 61 lakh crores in food retail by 2020.

- India is the largest producer (25% of global production), consumer (27% of world consumption) and importer (14%) of pulses in the world.

- India is the world leader in production of milk, banana, mangoes, spices, shrimp, pulses; and second cereals, vegetables and tea.

- The food processing industries accounts 32% of India's total food market

- Indian agriculture is self-sufficient when it comes to production. However, challenges are posed by yield, efficiency, technology, information, markets, investments, and research and development.

Ministry of Food Processing Industries

- It is responsible for formulation and administration of the rules and regulations and laws relating to food processing in India.

- Ministry has also been instrumental in helping farmers and have approved 42 mega food parks.

- It provides financial support of 35% of the total cost of plant and machinery for encouraging growth in food processing.

Other steps taken by Government of India (GOI) towards food processing

- GOI has entrusted specialized agro-processing financial institutions to finance/refinance the food processing sector, and has launched neoteric initiatives such as 'Operation Greens', to monitor price fluctuations.

- **Pradhann Mantri Kisan Sampada Yojna**

  ⊚ (PMKSY) is approved by GOI and it is a central sponsored scheme under Ministry of Food Processing Industries. It is a scheme for Agro-Marine Processing and Development of Agro-Processing Clusters.

  ⊚ It is a big step towards doubling of farmer's income through the assets (Sampada) of farmer.

- It is a comprehensive package which will result in creation of modern infrastructure with efficient supply chain management from farm gate to retail outlet.

- It will provide a big boost to the growth of food processing sector in the country and creates huge employment opportunities in the rural areas, reducing wastage of agricultural produce and increasing the food processing level and its export.

- **The following schemes will be implemented under PMKSY:**

  - Mega Food Parks

  - Integrated Cold Chain and Value Addition Infrastructure

  - Creation/ Expansion of Food Processing/ Preservation Capacities (Unit Scheme)

  - Infrastructure for Agro-processing Clusters

  - Creation of Backward and Forward Linkages

  - Food Safety and Quality Assurance Infrastructure

  - Human Resources and Institutions

  - Operation Greens

Indian Institute of Food Processing Technology (IIFPT)

- It is a pioneer Research and Educational Institution under the Ministry of Food Processing Industries.

- The Institute was later upgraded as a national laboratory with the name Paddy Processing Research Centre (PPRC) in 1972.

- At the time of up-gradation the mandates of the Institute were also changed and the scientists in the Institute focused their research in identifying technologies for post-harvest procession and preservation of paddy.

- The Institute was moved to its current location at Thanjavur in 1984.

- The IIFPT with its modern laboratories equipped with hi-tech instruments, is engaged in the R&D of food grain processing, value addition, by-product utilization through bio-processing, process and product development.

REGISTER OF INDIGENOUS INHABITANTS OF NAGALAND (RIIN)

⊙ **CONTEXT:**

- **The Nagaland government is initiating an exercise to prepare a list of all indigenous inhabitants of the State known as RIIN.**

⊙ **ABOUT:**

More on news

- This provisional list will then be published in all villages, wards and on government websites by September 11, 2019.

- A team of surveyors will be formed, which will comprise sub-divisional officers, block development officers, school headmasters and other nominated members.

What is RIIN?

- The RIIN will be the first official master list of Nagaland's indigenous inhabitants. It is seen as a localised version of the National Register of Citizens (NRC) that Assam began updating four years ago and is scheduled to complete by July 31.

- Its objective is to prevent people from acquiring fake indigenous inhabitants' certificates.

- The RIIN cannot grant nor deny citizenship to any person.

- Nodal Agency: Registrar General and Census Commissioner India.

How will it be prepared?

- Civil society groups in Nagaland have often conducted house-to-house surveys for listing non-Naga and IBIs (Illegal Bangladeshi Immigrants).

- The list will be based on an extensive survey besides digging into official records of indigenous residents from villages and urban wards.

- It will involve official records of indigenous residents from rural and (urban) wards and would be prepared under the supervision of the district administration.

- RIIN will be finalised and hard copies placed in all villages and wards while electronic copies will be stored in the State Data Centre

- Everyone figuring in RIIN will be issued a barcoded and numbered Indigenous Inhabitant Certificate (IIC). No IIC will be issued after RIIN is finalised except to babies born to indigenous inhabitants of Nagaland.

- The process will be linked with the online system of Inner Line Permit (ILP).

Inner Line Permit (ILP)

- It is a temporary travel document, which an Indian citizen has to possess to enter 'protected' areas of the Northeast.

- The Central government issues the ILP under the Bengal Eastern Frontier Regulation, 1873, which restricted the entry of 'British subjects' or Indians into these areas primarily to protect the British interest in tea and oil.

- The restriction continued for 'Citizens of India' after Independence to protect tribal cultures in the north-eastern region and to regulate movement to certain areas near the international border.

- Apart from the entire State of Nagaland barring its commercial hub Dimapur, the ILP is applicable in Arunachal Pradesh and Mizoram.

Issues of Indigenous inhabitants in Nagaland

- Nagaland has 16 recognised tribes- Angami, Ao, Chakhesang, Chang, Dimasa Kachari, Khiamniungan, Konyak, Kuki, Lotha, Phom, Pochury, Rengma, Sangtam, Sumi, Yimchungrü and Zeliang.

- Entry in RIIN is virtually guaranteed for people belonging to these communities.

- Others such as the Gurkhas living in Nagaland prior to statehood (on December 1, 1963) have been recognised as indigenous. But the definition of 'indigenous inhabitant' has been elusive because of issues beyond the tribal-non-tribal divide.

- There have concerns over Nagas from other areas such as Manipur getting jobs by claiming to be indigenous besides IBIs (Illegal Bangladeshi Immigrants) "taking over" large swathes of agricultural lands.

- Another worry is the Naga custom of adopting new communities such as Sumiya – children of Muslim men and Sumi Naga women – who own large swathes of cultivable land. Organisations such as the Naga Students' Federation have called for accommodating 'Nagas by blood and not by adoption'.

- Some political parties have asked whether or not the "adopted non-Nagas" will be given indigenous rights. A pressure group called the Joint Committee on Prevention of Illegal Immigrants sought to end confusion and "prevent inconsistent enumeration" by suggesting December 1, 1963 as the cut-off date for considering people other than the recognised tribes of Nagaland as indigenous inhabitants.

> **Registrar General and Census Commissioner of India**
> - It was founded in 1961 by Ministry of Home Affairs, for arranging, conducting and analysing the results of the demographic surveys of India including Census of India and Linguistic Survey of India.
> - The position of Registrar is usually held by a civil servant holding the rank of Joint Secretary.

US DRAG INDIA TO WTO

⊙ **CONTEXT:**

- **The United States (US) has dragged India to the World Trade Organisation (WTO), requesting dispute consultations on the 'retaliatory duties' imposed by India on 28 US goods.**

⊙ **ABOUT:**

More on news:

- The products on which duties were hiked as a tit for tat move include certain kind of nuts, iron and steel products, apples, pears, flat rolled products of stainless steel, other alloy steel, tube and pipe fittings, and screws, bolts and rivets.
- The duties were hiked as retaliation to the US move to impose the highest customs duties on certain steel and aluminium goods.
- According to USA, the additional duties on 28 US goods imposed by India "appears to nullify or impair the benefits accruing to the USA directly or indirectly" under the General Agreement on Tariffs and Trade (GATT) 1994.
- According to India, retaliatory duties are permitted under the WTO's Agreement on Safeguards.
- To this, the US maintains that its tariffs are not a safeguard measure but were taken under Section 232 of the US Trade Expansion Act of 1962 on grounds of national security and hence, India cannot impose these duties on like products originating in the territory of any other WTO member nation.
- If the dispute consultations between the two countries fail to resolve the matter then the US can ask the WTO to set up a panel to decide on the matter.

Several Disputes

- It is not the first time the USA and India had their trade issues settled at WTO.
- The two countries are at loggerheads at the WTO on other issues. The US has challenged certain export promotion schemes of India.
- Both the countries are already involved in disputes at the global trade body. The disputes are in the areas of poultry, solar and steel.
- India has challenged USA's unilateral hike on customs duties on steel and aluminium products.
- The US has rolled back export incentives from India under its GSP programme and India has imposed higher customs duties on 28 American products including almond, pulses, walnut, chickpeas, boric acid and binders for foundry moulds.
- India's exports to the US in 2017-18 stood at $47.9 billion, while imports were at $26.7 billion. The trade balance is in favour of India.

Indian disputes at WTO

- India has had problems with US, Canada, EU and China in the field of global trade.
- India recently won against US in the Dispute resolution body in the case of 'domestic content requirement for solar panels'.

- India along with other developing and least developed countries, namely the G-33 had opposed the Agreement on agriculture (AoA) made in Uruguay round due to its favouring lean towards developed nations. As a result, peace accord has been agreed upon in 2013 for food stocking program without violating the AoA.

- US pharma industries made reservations against compulsory licensing practice in India which India along with developing nations modified in Doha development round, allowing it.

- European Union in a concept paper 'WTO modernization' criticized WTO for allowing world's largest and dynamic countries like India, China, Brazil, etc. for claiming special and differential treatment.

WTO

- WTO is an intergovernmental organization that regulates international trade. It aims at making global trade smooth, predictable and free.

- The WTO officially commenced on 1 January 1995 under the Marrakesh Agreement, signed by 124 nations ,replacing the GATT, which commenced in 1948.

- It currently functions as per the consensus principle under which multilateral trade negotiations are conducted called as the Single Undertaking framework.

- Under it, all major decisions are made by the membership as a whole, either by ministers (who meet at least once every two years) or by their ambassadors or delegates (who meet regularly in Geneva).

- On the other hand, plurilateral agreements are deals negotiated among a group of like-minded members that are limited to certain sectors of goods or services.

- It is a global body, mandated to make world trade fair and free. Plurilateral negotiations can potentially encourage regional groupings, allaying the scope of global trade. It can also harm smaller and least developed countries, giving undue advantage to developed nations and powerful trade blocs.

US – INDIA DEFENCE COOPERATION

⊙ **CONTEXT**

- **The US Senate has passed a legislative provision that brings India on par with Washington's North Atlantic Treaty Organization (Nato) allies and countries such as Israel and South Korea for increasing defence cooperation.**

Which Legislative Provision?

- The legislative provision called National Defense Authorisation Act (or NDAA) for fiscal year 2020 was passed by Senate in late June.

- Purpose: NDAA provides for increased US-India Defence cooperation in Indian Ocean in areas of counter-piracy, counter-terrorism, humanitarian assistance and maritime security. It accords India with a NATO Ally-Like Status.

Significance for India

- The move of elevating India to non-NATO status is vital towards advancement of US-India strategic partnership and will further boost collaboration between India and US in defence.

- Unlike the member nations of NATO, who have to contribute from their gross national income to fund the NATO, major Non-NATO allies are only involved in Strategic working partnerships with NATO Countries. India will be under no obligation to support any of the policy endeavours of NATO.

- The move will enable India to access lot of military and financial advantages which are otherwise not available to non-NATO members.

- It makes India eligible for entry into cooperative research and development projects with US

- Allows India to take part in some counter – terrorism initiatives.

- India will be able to purchase depleted uranium anti-tank rounds.

- India can also expect to get priority delivery of ships and mitiary rations.

- India will be able to use American financing for purchase or ease of defence equipment.

Concerns for India

- Pakistan is one of the major Non-Nato allies of US. But in 2017, a bill was introduced in the US Congress seeking withdrawal of the status from Pakistan. Now, a new legislation has been introduced in the Congress to terminate the status of Pakistan.

- US – India Defence Trajectory

- During the visit of Prime Minister to the U.S. in June 2016, the U.S. recognised India as a "Major Defence Partner"

- **Agreements Signed Recently**

  - Logistics Exchange Memorandum of Association (LEMOA)

  - Fuel Exchange Agreement

  - Technical Agreement (TA) on information sharing on White (merchant) Shipping

  - The Information Exchange Annexe (IEA) Aircraft Carrier Technologies

- **Defence Acquisitions**

  - Aggregate worth of defence acquisition from U.S. Defence has crossed over US$ 13 billion.

  - India and the United States have launched a Defence Technology and Trade Initiative (DTTI) aimed at simplifying technology transfer policies and exploring possibilities of co-development and co-production to invest the defence relationship with strategic value.

- The two sides are also increasingly engaged in multi-lateral exercises such as the MALABAR, RED FLAG and RIMPAC, covering the broad expanse of the Indo-Pacific.

- The US has recently renamed its Pacific Command as the US Indo-Pacific Command (USINDOPACOM), an acknowledgement of the seamless connectivity that binds the Pacific and Indian Oceans and India's growing importance.

- The first-ever 2+2 dialogue was held in 2018 the backdrop of burgeoning joint exercises such as Cope-India (Air Force), Yudh Abhyas (Army) and Vajra Prahar (Special Forces).

- The Indian Navy and the US Naval Forces Central Command (NAVCENT) are set to deepen their maritime cooperation in the Western Indian Ocean.

ABOUT NATO

- It is an intergovernmental military and political alliance based on North Atlantic Treaty (also known as Washington Treaty) signed in 4 April 1949. It is also known as North Atlantic Alliance.

- It consists of 28 independent member countries across North America and Europe.

- It is headquartered in Brussels, Belgium and Headquarters of its Allied Command Operations in Mons, Belgium.

- Importance: It constitutes a system of collective defence by which its independent member states agrees for mutual defence in response to any attack on any member by any external party.

STRIDE

⊙ **CONTEXT:**
- **University Grants Commission (UGC) approves 'Scheme for Trans-disciplinary Research for India's Developing Economy' (STRIDE) to boost research culture and innovation in colleges and universities, that will help students and faculty to contribute towards India's developing economy with collaborative research.**

⊙ **ABOUT:**

More on news

- STRIDE will provide an opportunity to build multi-sectorial linkages between university-government-community-industry for national development and wellbeing of people.

- To encourage high quality high impact research in humanities, there is a provision to identify experts and invite them to develop a proposal.

- UGC also set up an Advisory Committee under the chairmanship of Bhushan Patwardhan to oversee the entire scheme. UGC is also proposing to provide a grant of Rs 2 lakh for developing proposals.

STRIDE components

- **Component-1**
  - It will endeavour to identify the motivated young talents with research and innovation aptitude in universities and colleges.
  - The scheme will provide research capacity building in diverse disciplines by mentoring, nurturing and supporting young talents to innovate pragmatic solutions for local, regional, national and global problems.
  - This component is open to all disciplines for grant upto 1 crore.

- **Component-2**
  - It will be mainly to enhance problem-solving skills with the help of social innovation and action research to improve the wellbeing of people and contribute to India's developing economy.
  - Collaborations between universities, government, voluntary organizations, and industries are encouraged under this scheme.
  - This component is open to all disciplines for grant upto 50 lakh – 1 crore.

- **Component-3**
  - It will fund high impact research projects in the identified thrust areas in humanities and human sciences through a national network of eminent scientists from leading institutions.
  - Disciplines eligible for funding under this component include philosophy, history, archaeology, anthropology, psychology, liberal arts, linguistics, Indian languages and culture, Indian knowledge systems, law, education, journalism, mass communication, commerce, management, environment and sustainable development.
  - Grant available for this component is upto 1 crore for one HEI and upto 5 crores for multi institutional network.

STRIDE Objectives

- To identify young talent, strengthen research culture, build capacity, promote innovation and support trans-disciplinary research for India's developing economy and national development
- To fund multi-institutional network high-impact research projects in humanities and human sciences.

STRIDE will support

- Research projects those are socially relevant, locally need-based, nationally important and globally significant.

- Research capacity building as well as basic, applied and transformational action research that can contribute to the national interest.

- Creation, development, and integration of new ideas, concepts, and practices for the public good and strengthening civil society.

- Trans-disciplinary research between humanities and human sciences, which will boost quality research on Indian languages and knowledge systems.

- New conceptual, theoretical, methodological innovations that integrate and transcend beyond discipline-specific approaches to address a common problem.

UGC

- It is an apex organisation that caters for the higher studies in India.

- It is a statutory organization established by an Act of Parliament in 1956 for the coordination, determination and maintenance of standards of university education.

- Apart from providing grants to eligible universities and colleges, the Commission also advises the Central and State Governments on the measures which are necessary for the development of Higher Education.

- It functions from New Delhi as well as its six Regional offices located in Bangalore, Bhopal, Guwahati, Hyderabad, Kolkata and Pune.

RIGHT TO EDUCATION

⊙ **CONTEXT:**
- **"State of the Education Report for India: Children with Disabilities" report has been released by United Nations Educational, Scientific and Cultural Organization (UNESCO) and Tata Institute of Social Sciences (TISS).**

- **Report highlights accomplishments and challenges with regards to the right to education of children with disabilities (CWDs).**

⊙ **ABOUT:**
More on news:

- The report highlights the number of CWDs enrolled in school drops significantly with each successive level of schooling.

- There are fewer girls with disabilities in schools than boys with disabilities.

- According to UNESCO, India is home to 8 million CWDs, and 45% of them fail to attain literacy. Globally 15% of people are disabled.

- The report states that in India, 75% of five-year-old with disabilities and a quarter of CWDs in the age group of five to 19 years do not attend any educational institution.

- 20% of children with visual and hearing impairments had never been in school.

- A large number of CWDs do not go to regular schools but are enrolled at the National Institute of Open Schooling (NIOS).

- According to this report, the attitude of parents and teachers towards including children with disabilities into mainstream education is also crucial to accomplish the goal of inclusive education besides accessibility to physical infrastructure, processes in the school, assistive and ICT technology and devices being essential resources.

- The report recommends structural, funding and attitudinal changes to ensure that no child is left out of the Right to Education (RTE).

- The RTE Act mandates enrolment, but not the provision of resources needed for the actual education of CWDs.

The vision of Inclusive Education

- It is an international normative framework comprising the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD), Sustainable Development Goals (SDG), specifically SDG4 and the Agenda 2030.
- The RTE Act 2009 and the Right of Persons with Disabilities (RPWD) Act 2016 have helped create a comprehensive legal framework for inclusive education.
- The operationalization of the legal provisions is primarily done through the Samagra Shiksha Abhiyan which envisions inclusive education as the underlying principle of providing a continuum of education.

Report proposes a set of ten recommendations

- Amend the RTE Act to better align with the RPWD Act by including specific concerns of education of children with disabilities.
- Establish a coordinating mechanism under Ministry of Human Resource Development (MHRD) for effective convergence of all education programmes of children with disabilities.
- Ensure specific and adequate financial allocation in education budgets to meet the learning needs of children with disabilities.
- Strengthen data systems to make them robust, reliable and useful for implementation and monitoring.
- Enrich school ecosystems and involve all stakeholders in support of children with disabilities.
- Massively expand the use of information technology for the education of children with disabilities.
- Give a chance to every child and leave no child with disability behind.
- Transform teaching practices to aid the inclusion of diverse learners.
- Overcome stereotypes and build positive dispositions towards children with disabilities, both in the classroom and beyond.
- Foster effective partnerships involving government, civil society, the private sector and local communities for the benefit of children with disabilities.

Steps taken by Government Bodies for CWDs

- National Council of Educational Research and Training (NCERT) created the Barkha – Graded Reading Series for children, which highlights the possibilities of Universal Design of learning.
- It has developed two manuals on 'Including Children with Special Needs' for primary and upper primary stage teachers.

State of the Education Report for India: Children with Disabilities

- It is one of UNESCO New Delhi's flagship reports to be published annually.
- Its main objective will be to monitor progress towards the education targets in the Sustainable Development Goals (SDGs).

United Nations Educational, Scientific and Cultural Organization (UNESCO)

- It seeks to build peace through international cooperation in Education, the Sciences and Culture.
- Its programmes contribute to the achievement of the Sustainable Development Goals defined in Agenda 2030, adopted by the UN General Assembly in 2015.
- It works so that each child and citizen has access to quality education. By promoting cultural heritage and the equal dignity of all cultures, it strengthens bonds among nations.

- It fosters scientific programmes and policies as platforms for development and cooperation.
- It helps countries adopt international standards and manages programmes that foster the free flow of ideas and knowledge sharing.

Way Ahead

- There remains a significant gaps, even though successive government schemes and programs have brought large numbers of CWDs into schools.
- More work is required in the field of assistive technologies, with particular attention paid to bridging the digital divide and overcoming equity concerns. For example, in a two-year research-cum-documentation project in the North East, sign languages operating in the region were compiled in a web-based application known as 'NESL Sign Bank'.

Smagara Shiksha Abhiyan

- It emphasizes on increasing enrolment of CWDs in regular schools, removal of barriers, training of teachers, use of technology and it also provides for home-based education.
- It expressly imagines the role of special schools as resource centres for general teachers who are required to teach children with disabilities.
- It also envisages convergence among the different schemes and programmes for children with disabilities that are spread across various ministries and departments.

ORION LAUNCH-ABORT SYSTEM

⊙ **CONTEXT:**

- **National Aeronautics and Space Administration (NASA) has carried out a successful test of a Launch-Abort System (LAS) at Cape Canaveral in Florida for the Orion capsule designed to take US astronauts to the Moon.**

⊙ **ABOUT:**

More on news:

- An unmanned Orion capsule was launched by a mini-rocket - a repurposed first stage of an intercontinental ballistic missile.
- The test of the Orion's LAS is also known as the Ascent Abort Test-2 (AA-2).
- It is designed to activate in the event of a rocket malfunction, on the pad or in flight.
- This is the US equivalent of an emergency system used last October to bring a Russian cosmonaut and a US astronaut safely back to earth when a problem emerged with their Soyuz rocket shortly after lift-off from Kazakhstan.
- The aim was to test in almost real-life conditions the evacuation of astronauts from the Orion capsule in the event of an explosion or other problem shortly after launch of the rocket taking them into space.
- The test is a milestone in NASA's preparation for Artemis missions to the Moon that will ultimately lead to astronaut missions to Mars.
- This mission is a first unmanned test flights for the new lunar program, which will send the first woman and the next man to the Moon by the year 2024 and develop a sustainable human presence on the Moon by the year 2028.

Orion Capsule

- Orion is the safest multi-purpose spacecraft ever built, which will execute the Artemis program.
- Orion's LAS is an integral part of ensuring safe spaceflight.
- This state-of-the-art crew escape system is attached to the top of the spacecraft and

can propel the crew module away from the rocket within milliseconds should a life-threatening event arise during launch.

Demonstration by the test

- In the test, an unmanned Orion capsule was launched by a mini-rocket.

- 55 seconds after the launch, at an altitude of 9,500 m, a rocket-powered tower on top of the crew module ignited its engines to quickly pull the Orion away from a hypothetical rocket experiencing problems.

- In just 15 seconds, the capsule gained two miles of altitude. Then the tower reoriented the capsule to prepare it for descent and disengagement from the tower, finally the crew module fell into the Atlantic Ocean.

- In real-life conditions, parachutes would also open to ease the manned capsule's fall toward the Atlantic Ocean.

- In this exercise, however, parachutes were not used because they are very expensive and have already been tested many times.

- The capsule fell into the water and after ejecting its black box recorders, was allowed to sink.

Project Artemis:

- It is $1.6 billion project of NASA to send the next man and first woman to the moon by 2024.

- Its timing is in synchronous with the Apollo lunar project of 1969, the 50th anniversary of the culmination of which is this year.

- Under the plan, a mission to land on the moon would take place during the third launch of the Space Launch System. Astronauts, including the first woman to walk on the moon would first stop at the orbiting lunar outpost. They would then take a lander to the surface near its south pole, where frozen water exists within the craters.

- NASA is seeking $132 million from the country's Congress for developing technologies like converting ice within craters at the moon's poles to water and $90 million for robotic exploration of the moon.

Why this particular name?

- The mission is named Artemis after the twin sister of Greek god Apollo, whose name was used by NASA for the series of spacecraft that first landed Americans on the moon in 1969.

- In Greek mythology, Artemis was the Moon goddess. It is also the nomenclature for the goddess of the hunt. Her faithful hunting companion was named Orion, just like the spacecraft.

- NASA has announced that Artemis would refer to the major upcoming missions concerned with establishing a permanent presence on the Moon. This includes all the major missions to explore the lunar surface, as well as any constructing infrastructure there or in lunar orbit, for example the planned Lunar Orbital Platform-Gateway.

JAPAN RESUMES COMMERCIAL WHALING

⊙ **CONTEXT**

- **Japan recently has resumed commercial whaling after leaving International Whaling Commission last year.**

⊙ **ABOUT:**

More on news

Reasons of withdrawal cited by Japan

- With a moratorium in effect for more than 30 years, populations of endangered whale species will have had plenty of time to regenerate.

- 'Fundamental differences' among members have led the whaling commission to what it calls a dead end.

- Pressure from local fishermen to restart commercial whaling.

- Whaling is deeply ingrained in Japanese culinary culture, dating back as far as the earliest historical era of the Jomon Period (10,000-200 B.C.). Whale meat also served as critical sources of protein in the post-war period as the nation grappled with poverty.

Background and Implications

- Japan has been mulling leaving the whaling commission for some time in the past. It kills an estimated 450 whales annually.

- Japan had proposed lifting a 32-year whaling ban when the IWC met in Brazil for its annual conference in September 2018. The proposal was rejected and criticised by the environmental organizations.

- The country officially halted commercial whaling in 1988, complying with the Commission's moratorium.

- Japan's withdrawal has put an end to its IWC-sanctioned whaling activity in the Antarctic Ocean, long conducted under the name of "scientific research," in a practice widely slammed as commercial whaling in disguise.

- However, even after its exit from the IWC, Japan will continue to attend its meetings as an observer and work toward rectifying what they called the "dysfunction" of the IWC.

- Japan's continued involvement with the commission is apparently aimed at fulfilling a condition set under international law for the management of whales.

- Under the U.N.-designated Convention on the Law of the Sea, member states are obliged to "work through appropriate international organizations" for whaling.

- International community urged Japan for the protection needed to safeguard the future of our oceans and these majestic creatures; rather than resuming commercial whaling.

- The other two countries that still hunt whales commercially are Norway and Iceland.

International Whaling Commission (IWC)

- IWC is the global body charged with the conservation of whales and the management of whaling. Currently, it has 89 members.

- All members are signatories to the International Convention for the Regulation of Whaling. This Convention is the legal framework which established the IWC in 1946.

- Uncertainty over whale numbers led to the introduction of a 'moratorium' on commercial whaling in 1986. This remains in place although the Commission continues to set catch limits for aboriginal subsistence whaling.

- Today, the Commission also works to understand and address a wide range of non-whaling threats to cetaceans including entanglement, ship strike, marine debris, climate change and other environmental concerns.

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