



			A	RT d
GS-I		NEED OF EQUALITY FOR WOMEN	٦	Bur
GS-II		INDIA AUSTRALIA RELATIONS	G	EO Irar
		BIMSTEC AND ENERGY SECURITY		NTE ELA
		ONE-TIME OPTION' TO CENTRAL	•	Wai Exe
		APPOINTMENT OF CEC AND ECS		OLI OV
		WORLD BANK LENDS FOR HEALTH SECTOR IN INDIA	0	SW/ SW/ Indi
GS- III		INDIA'S MIGRANT NUMBERS	Ð	Acc Cry be o
		INDIA'S LABOUR FORCE AND NATIONAL INCOME DATA		Lau
		INDIA'S INCREASING POWER DEMANDS	NE •	Sis site
		HIMALAYAN TOURISM AND THREATS		Hyl Sal Hot
		CORAL REEFS	٦	The frai
	٦	FOREST CERTIFICATION IN INDIA	D	Hal Ide nur
		"ORGANOID INTELLIGENCE" - REVOLUTIONAR Y BIOCOMPUTERS	0	Nai Wir NIS
SP	E	CIAL		

Manual Scavenging and laws

PRELIMS

& CULTURE

ial sites of Charaideo

GRAPHY

i's lithium deposit

RNATIONAL TIONS

rrior Shield FTX Joint rcise

TY & ERNANCE

- AYATT Initiative
- AMIH investment fund
- ia's Higher Education reditation System
- ptocurrency trade to covered under Money ndering Law

- **ENVIRONMENT**
- India's progress in Bio-fuels
- **Global Greenhouse Gas** Monitoring Infrastructure
- **International Big Cat** Alliance (IBCA)

ECONOMY

- Digital villages programme
- **Ornamental fish** D aquaculture
- Life cycle of working women Index

SCIENCE &

TECHNOLOGY

- Indian Railways ties up with ISRO for real-time train tracking
- **n** Supernova and effects

S IN SHORTS

- hupalgarh ancient
 - orid Solar Eclipse
- t flats
- t lightning strikes
- Windsor mework
- Imark Unique ntification (HUID) nber
- no liquid DAP
- ndfall tax
- **SAR** satellite

- Exercise Shinyuu Maitri **Dusky Tetraka Mugger Crocodile**
- n (Crocodylus Palustris)
- **Yellowstone National** Park
- Jerdon's narrow-• mouthed frog (Uperodon montanus)
- Bea Horse (Hippocampus kelloggi)
- World Wildlife Day 2023



www.iasscore.in

- 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.



CONTENTS

WEEK - 2 (MARCH, 2023)

Section - A: MAINS CURRENT AFFAIRS					
	Area of GS Topics in News Page N				
GS I	SOCIETY	Need of Equality for Women	2		
	INTERNATIONAL RELATIONS	India Australia relations	3		
		BIMSTEC and Energy Security	4		
GS II		One-time option' to Central Civil Employees	5		
	POLITY & GOVERNANCE	Appointment of CEC and ECs	6		
		World Bank lends for Health Sector in India	7		
		India's Migrant Numbers	8		
GS III	ECONOMY	India's labour force and national income data	10		
GSIII		India's increasing power demands	11		
	ENVIRONMENT	Himalayan Tourism and threats	12		
		Coral reefs	113		
		Forest certification in India	14		
SCIENCE & TECHNOLOGY		 "Organoid Intelligence" – Revolutionary Biocomputers 	15		
	Section - B: SPECIAL				
Area of GS Topics in News		Topics in News	Page No.		
GS II	POLITY & GOVERNANCE	Manual Scavenging and laws	18		
	Section - C: PRELIMS CURRENT AFFAIRS				
Area of GS Topics in News		Topics in News	Page No.		
GS I	ART & CULTURE	Burial sites of Charaideo	22		
GSI	GEOGRAPHY	Iran's lithium deposit	23		
GS II INTERNATIONAL RELATIONS • Warrior Shield FTX Joint Exercise		23			

iasscore gsscoreofficial gsscoreofficial/ For Information, Contact: 8448496262 Website: https://iasscore.in/ **An Institute for Civil Services SUCCESS** IS A PRACTICE **DOI** R. P. SINGH **RAJEEV CHAUDHARY RASHID YASIN** MANOJ K. JHA SIDDHARTH MITTAL RAJNISH JINDAL **GAURAV BANSAL** SHIVLAL GUPTA RAJVARDHAN SOURABH MISHRA SMRITI RAO ABHISHIEKH SAXENA VIRAJ C. RANE THE MOST EXPERIENCED & SEASONED SUBJECT EXPERT

gsscoreofficial

gsscoreofficial

IASSCOREofficial

		SWAYATT Initiative	24
			24
GS II	POLITY & GOVERNANCE		
		India's Higher Education Accreditation System	25
		 Cryptocurrency trade to be covered under Money Laundering Law 	25
	ENVIRONMENT	India's progress in Bio-fuels	26
		Global Greenhouse Gas Monitoring Infrastructure	27
		International Big Cat Alliance (IBCA)	28
	ΕϹΟΝΟΜΥ	Digital villages programme	28
GS III		Ornamental fish aquaculture	29
		Life cycle of working women Index	29
	SCIENCE &	 Indian Railways ties up with ISRO for real-time train tracking 	30
	TECHNOLOGY	Supernova and effects	31
		Section - D: SHORT NEWS	
	Area of GS	Topics in News	Page No.
ART &	CULTURE	Sishupalgarh ancient site	34
		Hybrid Solar Eclipse	34
GEOGR	АРНҮ	Salt flats	35
		Hot lightning strikes	35
INTERNATIONAL RELATIONS		The Windsor framework	36
POLITY AND GOVERNANCE		Hallmark Unique Identification (HUID) number	36
		Nano liquid DAP	37
FCONO	N 4 1/	Nano liquid DAP	57
ECONO	MY	Windfall tax	37
		· · · · · · · · · · · · · · · · · · ·	
	MY E & TECHNOLOGY	Windfall tax	37
		Windfall tax NISAR satellite	37 38
		Windfall tax NISAR satellite Exercise Shinyuu Maitri	37 38 38
		Windfall tax NISAR satellite Exercise Shinyuu Maitri Dusky Tetraka	37 38 38 39
SCIENC		Windfall tax Windfall tax NISAR satellite Exercise Shinyuu Maitri Dusky Tetraka Mugger Crocodile (Crocodylus Palustris)	37 38 38 39 39
SCIENC	E & TECHNOLOGY	 Windfall tax NISAR satellite Exercise Shinyuu Maitri Dusky Tetraka Mugger Crocodile (Crocodylus Palustris) Yellowstone National Park Jerdon's narrow-mouthed frog (Uperodon 	37 38 38 39 39 39 39

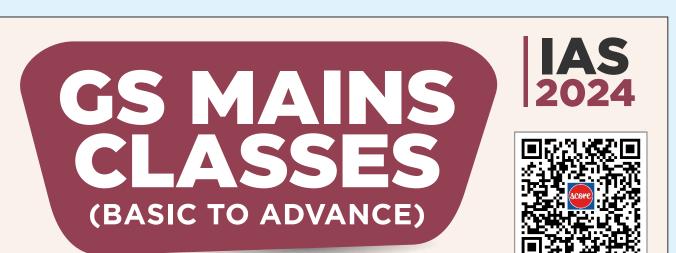




IAS 2024-25 **GS FOUNDATION** <u>Mains cum Prelims</u> 1 YEAR & 2 YEAR

Only Outcome Matters!

PROGRAMME



Jhe Ultimate Mains Programme

- Severything for GS MAINS in 7 Months
- **⊘** Complete Coverage *of* GS PAPER 1,2,3,4 & Essay
- **⊘** Answer Writing + Test Series *with* Personalized Mentoring

1B, Second Floor, Pusa Road, Karol Bagh, New Delhi - 110005 (Beside Karol Bagh Metro Station Gate No. 8)

SECTION: 'A' (MAINS)

CURRENT AFFAIRS

o

NEED OF EQUALITY FOR WOMEN

CONTEXT:

Decades of advances on women's rights are being wound back and the world is now hundreds of years away from achieving gender equality, according to the United Nations' Chief stated as the world celebrated

International Women's Day on 8th March 2023.

Which are the improved areas?

- **Improved education:** The country has registered significant improvements in closing gender gaps in education.
 - Data: According to the latest edition of the World Economic Forum's Global Gender Gap Report Index (2022), India has a score of 1 for the sub-categories of primary education and tertiary education enrolment under the vertical 'Educational Attainment'.
 - Concerted governmental efforts: Sarva Sikhsha Abhiyaan (2001), the Right to Education Act (2009), the mid-day meal scheme (1995), and Beti Bacho, Beti Padhao campaign (2015), and myriad scholarship schemes for the girl child.
- Improved sex ratio: From having a highly skewed sex ratio at birth owing to the social and cultural devaluation of females and the phenomenon of strong 'son preference', India has improved its sex ratio at birth from 898 females per 1000 males in 1999 to 907 females per 1000 males in 2019.
 - While gender balance is still not in sight and sexselective abortion continues to take place, we must acknowledge the change that has transpired in a society rife with instances of female foeticide, infanticide, and neglect.
- Improved equality: India also improved its position marginally in the Gender Inequality Index (GII) in 2021 (0.490) from 2020 (0.493).

What are the current areas of concern?

- **Gap in labour force:** In 2021, India's female labour force participation was 23%, one of the lowest in the world and well below the world average of 47%.
- Gap in Male Female Literacy Rate: The literacy rate of women in India, especially in rural areas, still remains very poor.
 - Schools in rural India are at considerable distances and in absence of strong local law and

order, women find it unsafe to travel long distances for schooling.

- Traditional practices like female infanticide, dowry, and early marriage have also contributed to the problem as many families find it economically unviable to educate the girl child.
- Role Stereotyping: Still a large section of our Indian Society considered the roles of men as taking all the financial responsibilities and work outside.
 - Gender role stereotyping attributed to women has generally led to prejudice and discrimination against women.
 - For example, women may be considered to be less reliable as workers because of their child-rearing functions.
- **Differentiation in the Socialisation Process:** In many parts of India, especially in rural regions, there are still different **socialisation norms** for men and women.
 - Women are expected to be soft-spoken, calm, and quiet. They should walk, talk, sit and behave in a certain manner. Whereas men ought to be confident, loud, and could display any behaviour as per their wish.
- Representation of Women in Legislature: The representation of women in different legislative bodies remains low across India.

Status of Crime against Women: (India-specific)

- According to National Crime Records Bureau (NCRB), every day 93 women are being raped in the country.
- Crime against women across the country increased by around **10 per cent last year** as compared to previous year with total 3,37,922 cases registered in 2014 against 3,09,546 cases in 2013, according to the National Crime Records Bureau's latest report
- Indian Government statistics also show that an estimated 7000 brides are killed and 18000 are maimed every year in India over dowry disputes alone.
- Violent conflict, displacement, the growing climate emergency, the repercussions of the global pandemic, and vocal anti-feminist movements have reversed generational gains in women's rights.
- According to the report of Inter-Parliamentary
 Union (IPU) and UN Women, India ranks 148 out of 193 countries in the number of elected female representatives in parliament.
- Safety Concern: In India, despite of continuous efforts in the field of Safety, women are threatened by various acts via feticides, domestic violence, rape, trafficking, forced prostitution, honour killings, sexual harassment at workplace etc.

WEEK - 2 (MARCH, 2023)

• **Period Poverty:** A lack of access to **sanitary products**, **menstrual education** and hygiene and sanitation facilities necessary to properly manage menstruation.

- According to a United Nations Children's Fund (UNICEF) study conducted in 2011 only 13% of girls in India are aware of menstruation before menarche.
- Glass Ceiling: Women not only in India but across the globe face a social barrier preventing women from being promoted to top jobs in management.

Global challenges:

- The World Bank's Gender Data Portal has given to explore some of the obstacles still preventing women from fully participating in the economy:
- Globally, nearly one in three women have experienced violence:
 - Violence against women and girls is a global pandemic. Almost one in three—or 736 million women above the age of 15 across the world have experienced intimate partner violence or nonpartner sexual violence at least once in their lifetime
- The gap in labour force participation rate between women and men has not narrowed in most regions over the last three decades:
 - Globally, roughly half of working age women participates in the labour force, which is significantly lower than the male labour force participation rate of around 80%.
 - This gap is virtually unchanged from what it was three decades ago.
- Across the world, more than one in five women have been child brides:
 - According to the latest statistics, more than one in five women was first married before the age of 18, with the practice of child marriage being most prevalent in Sub-Saharan Africa and South Asia.

INDIA AUSTRALIA RELATIONS

CONTEXT:

Recently, Australian PM Anthony Albanese's visited India to further strengthen India-Australia relations.

What are the major areas of Cooperation?

GESSCORE

 India and Australia share warm and friendly relations based on common values and democratic principles. The **Strategic Partnership** between the two countries was elevated to a **Comprehensive Strategic Partnership** in June 2020.

- Economic:
 - ➤ India and Australia signed concrete Economic Cooperation and Trade Agreement (ECTA) to strengthen their economic ties
 - In 2018, Australia announced implementation of "An India Economic Strategy to 2035".
- **Defence ties**: Australia participated in **Malabar exercise** along with India, japan and USA.
 - AUSINDEX-naval engagement between India and Australia.
- Education: Australia also has a strong fit with the Indian effort to modernise its higher education sector under the New Education Policy.
 - Australia is now set to open two universities in Gujarat's GIFT city.
- Diaspora:
 - ➤ Indian's emerged as one of the Australian's largest community. It is largest diaspora to acquire citizenship
 - Nearly 60,000 Indians are studying in Australia at the end of 2022.
- Technology: Australia-India Technology Framework agreement on cyber and cyber-enabled technology was signed between both the countries.
- Critical minerals: Both India and Australia cooperates in mining and rare earth minerals. Australia is the major supplier of critical minerals.
- Converging interest: Both India and Australia are concerned about the aggressive rise of China. Therefore, both the countries have signed the Mutual logistic support agreement.
- International fora: Commonwealth, Quad, G20, IORA.
 - Both have shared interests in vision of a free, open, inclusive and rules-based Indo-Pacific region. Both are part of QUAD, and also proposed Supply Chain Resilience Initiative.
- An **Australia-India Strategic Research Fund** was established in 2006 for scientists to collaborate on leading-edge research.

What are the persistent between India and Australia?

- **India opted out from** Regional Comprehensive Economic Partnership (**RCEP**).
 - Among other things, India and Australia could not agree regarding market access over agriculture and dairy products.

WEEK - 2 (MARCH, 2023)

• **Differences over china**: Australia's economy is heavily dependent on China, with China being Australia's largest trading partner, accounting **for 26 %** of its trade with the world.

- Also, Australian concerns have to do with China's increased activities in the Pacific; while India is concerned about China's greater presence and influence in the Indian Ocean
- Nuclear Mineral resources: Australia is one of the world's largest exporters of uranium ore, but exports to India were banned because the country is not party to the NPT.

Way forward:

- Both nations reassure neighbouring states, particularly those in South East Asia, that the Indo-Pacific region's public goods are the Quad's primary goal rather than containing China.
 - ➤ Modi's emphasis on a "multipolar Indo-Pacific" and Albanese's focus on "strategic equilibrium" provide the basis for a productive Indian and Australian regional engagement.
- The political coordination and strategic cooperation between both the countries in the numerous subregions, such as the southern ocean, Arabian Sea, Bay of Bengal, eastern Indian Ocean, and South Pacific, also needs to be improved.

BIMSTEC AND ENERGY SECURITY

CONTEXT:

Despite being abundant with resources and developed energy sector, BIMSTEC countries are not much advance in generation and utilisation to provide affordable energy access to all.

Status of energy access in BIMSTEC countries:

- Bhutan has achieved **100 per cent energy access** through off-grid energy sources.
- Nepal has achieved 78 per cent of energy access, while Bangladesh achieved 95 per cent of energy access.
- Myanmar reported its access to energy as 50 per cent in 2019.

Sri Lanka, India, and Thailand have achieved 100 per cent or near 100 per cent energy access.

BIMSTEC energy Centre (BEC):

• India hosted the first meeting of Governing Board of BIMSTEC Energy Centre in February 27, 2023.

Energy Resources in the region

The BIMSTEC region encompasses vast energy resources, including:

- 331 billion tonnes of **coal**
- 718 million tonnes of oil
- 76 trillion cubic feet (TCF) of natural gas
- 386 GW of large hydropower
- renewable energy of 1,359 GW potential
- BIMSTEC Energy Centre is situated in Bengaluru, India.
- ➤ It aims to create free-trade and power grid interconnectivity agreements, and a masterplan for transport connectivity in the Bay of Bengal region (adopted at the current summit).
- Considering the current energy scenario in the region, the meeting recommended to add the additional following areas under the specialized Wings of BEC:
- Cyber Security

o

- Green Hydrogen
- Energy Transition
- In 2021, the initiative was reorganised into seven sectors.

Bangladesh	Trade, Investment and Development
Bhutan	Environment & Climate Change
India	Security
	Sub-sector: Counter-Terrorim adn Transnational Crime, Disaster Mangement, Energy
Myanmar	Agriculture and Food Security
	Sub-sectors: Agriculture, Fisheries & Livestock
Nepal	People-to-people Contact
	Sub-sectors: Culture, Tourism, People-to-people Contact (forums of think tanks, media etc.)
Sri Lanka	Science, Technology & Innovation (Sri Lanka)
	Sub-sectors: Technology, Health, Human Resource Development
Thailand	Connectivity



About BIMSTEC:

- The **Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)** is a regional multilateral organisation.
- BIMSTEC countries are home to **1.7 billion people** with a combined **GDP of \$3.7 trillion**.
- Its members lie in the littoral and adjacent areas of the Bay of Bengal constituting a contiguous regional unity.
- Headquarter is situated in Dhaka, Bangladesh.
- Out of the 7 members, Five are from South Asia -

- ► Bangladesh
- Bhutan
- ► India
- Nepal
- Sri Lanka
- Two are from Southeast Asia
 - Myanmar
 - ► Thailand
- BIMSTEC not only connects **South and Southeast Asia**, but also the ecologies of the Great Himalayas and the Bay of Bengal.
- It mainly aims to create an enabling environment for rapid economic development; accelerate social progress; and promote collaboration on matters of common interest in the region.
- The ADB (Asian Development Bank) has become BIMSTEC's development partner since 2005, to undertake a study
 which is designed to help promote and improve transport infrastructure and logistic among the BIMSTEC countries.
- So far, ADB has already finished the project so called BIMSTEC Transport Infrastructure and Logistic Study (BTILS).

'ONE-TIME OPTION' TO CENTRAL CIVIL EMPLOYEES

CONTEXT:

In a significant decision, the government has decided to give a one-time option to select Central government employees to migrate to the Old Pension Scheme (OPS).

Background:

- In 2020, the Department of Pension and Pensioners' Welfare (DPPW) gave one-time option to those Central government employees to opt for the OPS who were declared successful for recruitment in the results declared before December 31, 2003.
- Recently, the department has called that in all cases where a Central government civil employee has been appointed against a post or vacancy which was advertised/notified for recruitment/appointment, prior to the date of notification for the NPS i.e. 22.12.2003 and has been covered under the NPS on joining service on or after 01.01.2004, may be given a one-time option to be covered under the CCS (Pension) Rules, 1972 (now 2021).
- This option may be exercised by the concerned government servants latest by **31 August 2023**.

Till January 31 2023, there were 23, 65,693 Central government employees and 60, 32,768 State government employees enrolled under the NPS. Except **West Bengal**, all States had implemented the NPS.

About the proposal:

 The government has decided to allow the selected Central government employees, who applied for jobs advertised before December 22, 2003, the day the National Pension System (NPS) was notified but joined the service in 2004, when the NPS came into effect.

Who are eligible to apply?

- The order will be applicable to Central Armed Police Force (CAPF) personnel and other Central government employees who joined the services in 2004 as the recruitment process was delayed due to administrative reasons.
- The employees' contribution to the NPS will be credited to the General Provident Fund (GPF) of the individual.

The New Pension Scheme (NPS):

The New Pension System proposed by the Project
 OASIS report became the basis for pension reforms

WEEK - 2 (MARCH, 2023)

and what was originally conceived for unorganised sector workers, was adopted by the government for its own employees.

- The NPS was for prospective employees; it was made mandatory for all new recruits joining government service from January 1, 2004.
- Contributions:
 - ➤ The defined contribution comprised 10 percent of the basic salary and dearness allowance by the employee and a matching contribution by the government this was Tier 1, with contributions being mandatory.

What is DA?

- It is calculated as a percentage of the basic salary.
- It is a kind of adjustment the government offers its employees and pensioners to make up for the steady increase in the cost of living.
- In 2019, the government increased its contribution to 14 percent of the basic salary and dearness allowance.
- Schemes under the NPS are offered by nine pension fund managers
 - It is sponsored by SBI, LIC, UTI, HDFC, ICICI, Kotak Mahindra, Adita Birla, Tata, and Max.
- It laid in its promise of an assured or '**defined' benefit** to the retiree.
- It was hence described as a 'Defined Benefit Scheme'.
- **Example** if a government employee's basic monthly salary at the time of retirement was Rs.10, 000, she would be assured of a **pension of Rs.5, 000.**
- The monthly pay-outs of pensioners also increased with hikes in **dearness allowance** or DA announced by the government for serving employees.

APPOINTMENT OF CEC & ECS

CONTEXT:

The Supreme Court held that a committee comprising the Prime Minister, the Leader of the Opposition and the Chief Justice of India will advise the President on appointments to the Election Commission of India until Parliament enacts a law on the subject.

Key-highlights of the Ruling

• The ruling revamped the selection mechanism to appoint the **Chief Election Commissioner (CEC) and Election Commissioners (ECs).**

It provided for the formation of a panel comprising the Prime Minister, the Leader of Opposition (LoP), and the Chief Justice of India (CJI) to advise on the appointment the CEC and EC.

- This made the selection process of CEC and EC's similar to what is followed in the case of the Director, Central Bureau of Investigation (CBI).
- The ruling is set to limit the government's authority to make such high-level appointments like that of the CEC and ECs.
- This will continue to hold good till a law is made by Parliament.

Important Committees

The following committees recommended for an independent system for the appointment of members of the Election Commission:

- Justice Tarkunde Committee (1975)
- Dinesh Goswami Committee (1990)
- Second Administrative Reforms Commission (2007)
- Law Commission of India (2015)

How are the CEC and ECs currently appointed?

- Election Commission of India is a permanent Constitutional Body. The Election Commission was established in accordance with the Constitution on 25th January 1950.
- Presently, the ECI is a three-member body, with a CEC and two ECs.
- The Constitution does not lay down a specific legislative process for the appointment of the CEC and ECs.
- Under Article 324(2) of the Constitution, the President is empowered to appoint the CEC and ECs.
- This provision further stipulates that the President, who acts on the aid and advice of the Prime Minister and the council of ministers, will make the appointments "subject to the provisions of any law made on that behalf by Parliament".

Powers of the Election Commission

- Article 324 of the Constitution vests the "superintendence, direction and control of elections" in an Election Commission
- Supreme Court in 'Mohinder Singh Gill & Anr vs The Chief Election Commissioner, New Delhi and Ors' (1977) stated that Article 324 "operates in areas left unoccupied by legislation and the words 'superintendence, direction and control' as well as 'conduct of all elections' are the broadest terms".



6

WEEK - 2 (MARCH, 2023)

 The SC stated that Article 324 "is a plenary provision vesting the whole responsibility for national and State elections" in the ECI "and, consequently, the essential authorities to fulfil that function"

What are the questionable issues out of the judgment?

- Does the current process for ECI appointments violate the right to equality?
- Does the current process for ECI appointments violate the right to free and fair elections?
- Currently, the Executive enjoys the power to make appointments, which has degraded the ECI's independence over time. The current system of appointments violates **Article 324(2)** of the Constitution.
 - ➤ Article 324 specifies that while the Chief Election Commissioner and Election Commissioners will be appointed by the President, this is subject to Parliamentary law (if such law exists).
 - While this provision places an expectation on Parliament to draft a relevant a law, it has not done so up until now.
 - ► In the absence of such a law, the President has been making appointments as per the recommendations of the Prime Minister.

WORLD BANK LENDS FOR HEALTH SECTOR IN INDIA

CONTEXT:

The World Bank is lending up to \$1 billion to help India with preparedness for future pandemics as well as to strengthen its health infrastructure.

About:

- The lending will be divided into **two complementary** loans of **\$500 million each**.
- The bank will support India's flagship Pradhan Mantri-Ayushman Bharat Health Infrastructure Mission (PM-ABHIM), launched in October 2021, to improve the public healthcare infrastructure across the country.
- In addition to the national-level interventions, one of the loans will prioritise health service delivery in seven States including Andhra Pradesh, Kerala,

Meghalaya, Odisha, Punjab, Tamil Nadu, and Uttar Pradesh.

- The \$500-million Public Health Systems for Pandemic Preparedness Program (PHSPP) will support the government's efforts to prepare India's surveillance system to detect and report epidemics of potential international concern.
- Another portion of funds will also be allocated for Enhanced Health Service Delivery Program (EHSDP), which will support government's efforts to strengthen service delivery through a redesigned primary healthcare model.
 - It includes improved household access to primary healthcare facilities, stronger links between each household and its primary care facility through regular household visits and risk assessment of non-communicable diseases.
- Both the **PHSPP and the EHSDP** utilise the **Program-for-Results** financing instrument that focuses on achievement of results rather than inputs.
- Both the PHSPP and EHSDP loans from the **International Bank for Reconstruction and Development (IBRD)** have a final maturity **of 18.5 years** including a grace period of five years.

Need of the initiative:

 COVID-19 has underscored the need for developing capacity for core public health functions, as well as for improving the quality and comprehensiveness of health service delivery.

India's Health sector:

- In India, the Health care sector is one of the **largest sectors** in terms of both revenue and employment.
- India's performance in health has improved over time.
- According to World Bank estimates, India's life expectancy has increased from 58 in 1990 to 69.8 in 2020.
- This is higher than average for the country's income level.
- Other indicators:
 - The under-five mortality rate (36 per 1,000 live births),
 - ► Infant mortality rate (30 per 1,000 live births), and
 - Maternal mortality ratio (103 per 100,000 live births) is all close to the average for India's income level.



WEEK - 2 (MARCH, 2023)

Persistent issues in the sector	Required measures
Inadequate reach and fund	Improving infrastructure
Optimal Insurance	Focus on efficiency enhancement
No focus on Preventive Car	Technology utilisation
Less emphasis on Medical Research	Awareness
Issue of Policymaking	Effective government intervention
Shortage of Medical Workforce	 Increased Budgetary allocation
Inadequate outlay for health	
Lack of structure	

INDIA'S MIGRANT NUMBERS

CONTEXT:

Amid the concerns in Tamil Nadu against the reverse migration of workers/labours of North India, after the fake video got viral showing exploitation of 'Hindi speaking' workers in the State.

• There are high chances that **economy** of the state might get affected.

Who are migrant workers?

- A person who migrates or who has migrated from one country to another with a view to being employed other than on his own account.
- Migrant workers are also known to be much more likely to end up in what are often known as the '3D' (dirty, dangerous and demeaning) jobs, such as construction, mining or manual scavenging.

The Statistics for Migration in India:

- The 2011 census reported the number of internal migrants in India at 45.36 crore, making up 37% of the country's population.
- This number included both **inter-state migrants** and migrants within each state.
- The annual net migrant flows amounted to about **1 per cent** of the working age population.
- As per the 2011 census, India's workforce was 48.2 crore strong. This figure is estimated to have exceeded 50 crore in 2016 the Economic Survey that year pegged the size of the migrant workforce at roughly 20 per cent of the population, or more than 10 crore individuals.
- District-wise migration data in the Economic Survey for 2016-17 showed that the highest influx of migrants within the country was in city-districts such as Gurugram, Delhi, and Mumbai; along with Gautam Budh Nagar (Uttar Pradesh); Indore and

Bhopal (Madhya Pradesh); Bengaluru (Karnataka); and Thiruvallur, Chennai, Kancheepuram, Erode, and Coimbatore (Tamil Nadu).

State-wise data:

The highest **outward movement of migrant workers** was from;

- Muzaffarnagar, Bijnor, Moradabad, Rampur, Kaushambi, Faizabad, and 33 other districts of Uttar Pradesh;
- Uttarkashi, Chamoli, Rudra Prayag, Tehri Garhwal, Pauri Garhwal, Pithoragarh, Bageshwar, Almora, and Champawat in Uttarakhand;
- Churu, Jhunjhunu, and Pali in Rajasthan;
- Darbhanga, Gopalganj, Siwan, Saran, Sheikhpura, Bhojpur, Buxar, and Jehanabad in Bihar;
- Dhanbad, Lohardaga, and Gumla in Jharkhand; and Ratnagiri and Sindhudurg in Maharashtra.
- The largest recipient of migrant workers was the Delhi region, which accounted for more than half of migration in 2015-16.
- While Uttar Pradesh and Bihar taken together account for half of total out-migrants.

Issues of Migrant workers:

- Poor implementation of protections under the Inter-State Migrant Workmen Act, 1979 (ISMW Act)
 - The ISMW Act provides certain protections for inter-state migrant workers.
 - Labour contractors recruiting migrants are required to:
 - Be licensed,
 - Register migrant workers with the government authorities, and
 - ➤ Arrange for the worker to be issued a passbook recording their identity. Guidelines regarding wages and protections (including accommodation, free medical facilities, protective clothing) to be provided by the contractor are also outlined in the law.



WEEK - 2 (MARCH, 2023)



17 districts account for 25% of male outmigration in the country. The map shows 16; Ganjam in Odisha is not mapped.

Source: Customised from the Registrar General of India, based on Census 2001 in the Report of Working Group on Migration, 2017

SHARE OF MIGRANT WORKERS AMONG TOTAL WORKERS BY MAJOR SECTORS

	R	Iral	Urban	
Sector	Male	Female	Male	Female
Primary	4%	75%	20%	65%
Manufacturing	13%	59%	38%	51%
Public Services	16%	69%	40%	56%
Construction	8%	73%	32%	67%
Traditional Services	10%	65%	29%	55%
Modern Services	16%	66%	40%	52%
Total	6%	73%	33%	56%

Migration, 2017

Lack of portability of benefits:

- Migrants registered to claim access to benefits at one location lose access upon migration to a different location.
- ► This is especially true of access to entitlements

Central Delhi Gorakhpur Patna East Delhi Central Delhi Gwalior North Delhi Shahjahanpu Sindhudurg Mumbai Mumbai Lucknow Sindhudurg Tharie Haora Dhanbad North Delhi Azamgarh Moradabad Chandigarh Central Delhi Jhansi Vadodara Mumbai Suburban North Delhi Bareiliy Saharsa East Delhi Jhansi South delhi	То	From	
Chennal Kachchh Mumbai Suburban Gorakhpur Ratnagiri Thane Central Delhi Gorakhpur Patna East Delhi Central Delhi Gwalior North Delhi Shahjahanpu Sindhudurg Mumbai Mumbai Lucknow Sindhudurg Thane Haora Dhanbad North Delhi Azarngarh Moradabad Chandigarh Central Delhi Jhansi Vadodara Mumbai Suburban North Delhi Bareiliy Saharsa East Delhi Jhansi South delhi Central Delhi Nalanda Central Delhi Lucknow Central Delhi Begusarai	Krishna	Chittoor	
Mumbai Suburban Gorakhpur Ratnagiri Thane Central Delhi Gorakhpur Patna East Delhi Central Delhi Gwalior North Delhi Shahjahanpu Sindhudurg Mumbai Mumbai Lucknow Sindhudurg Thane Haora Dhanbad North Delhi Jhansi Vadodara Mumbai Vadodara Mumbai Suburban Suburban North Delhi Jhansi Vadodara Mumbai Suburban Suburban North Delhi Bareilly Saharsa East Delhi Jhansi South delhi Central Delhi Nalanda Central Delhi Lucknow Central Delhi Begusarai	Ratnagiri	Mumbai	
Ratnagin Thane Central Delhi Gorakhpur Patna East Delhi Central Delhi Gwalior North Delhi Shahjahanpu Sindhudurg Murnbai Murnbai Lucknow Sindhudurg Thane Haora Dhanbad North Delhi Azarngarh Moradabad Chandigarh Central Delhi Jhansi Vadodara Murnbai Suburban Suburban North Delhi Bareilly Saharsa East Delhi Jhansi South delhi Central Delhi Nalanda Central Delhi Lucknow Central Delhi Begusarai	Chennal	Kachchh	
Central Delhi Gorakhpur Patxa East Delhi Central Delhi Gwalior North Delhi Shahjahanpu Sindhudurg Mumbai Mumbai Lucknow Sindhudurg Thane Haora Dhanbad North Delhi Azarngarh Moradabad Chandigarh Central Delhi Jhansi Vadodara Mumbai Suburban North Delhi Bareilly Saharsa East Delhi Jhansi South delhi Central Delhi Nalanda Central Delhi Lucknow	Mumbai Suburban	Gorakhpur	
Patna East Delhi Central Delhi Gwalior North Delhi Shahjahanpu Sindhudurg Mumbai Mumbai Lucknow Sindhudurg Thane Haora Dhanbad North Delhi Azarngarh Moradabad Chandigarh Central Delhi Jhansi Vadodara Mumbai North Delhi Bareilly Saharsa East Delhi Jhansi South delhi Central Delhi Nalanda Central Delhi Nalanda Central Delhi Lucknow Central Delhi Begusarai	Ratnagin	Thane	
Central Deihi Gwalior North Deihi Shahjahanpu Sindhudurg Mumbai Mumbai Lucknow Sindhudurg Thane Haora Dhanbad North Deihi Azarngarh Moradabad Chandigarh Central Deihi Jhansi Vadodara Mumbai Suburban North Deihi Bareiliy Saharsa East Deihi Jhansi South deihi Central Deihi Nalanda Central Deihi Begusarai	Central Delhi	Gorakhpur	
North Delhi Shahjahanpu Sindhudurg Murnbai Murnbai Lucknow Sindhudurg Thane Haora Dhanbad North Delhi Azarngarh Moradabad Chandigarh Central Delhi Jhansi Vadodara Murnbai Suburban North Delhi Bareilly Saharsa East Delhi Jhansi South delhi Central Delhi Nalanda Central Delhi Lucknow	Patna	East Delhi	
Sindhudurg Mumbai Mumbai Lucknow Sindhudurg Tharie Haora Dhanbad North Delhi Azarngarh Moradabad Chandigarh Central Delhi Jhansi Vadodara Mumbai Suburban North Delhi Bareilly Saharsa East Delhi Jhansi South delhi Central Delhi Nalanda Central Delhi Lucknow Central Delhi Begusarai	Central Delhi	Gwallor	
Mumbai Lucknow Sindhudurg Thane Haora Dhanbad North Delhi Azarngarh Moradabad Chandigarh Central Delhi Jhansi Vadodara Mumbai Suburban Suburban North Delhi Bareilly Saharsa East Delhi Jhansi South delhi Central Delhi Nalanda Central Delhi Lucknow Central Delhi Begusarai	North Delhi	Shahjahanpu	
Sindhudurg Thane Haora Dhanbad North Delhi Azarngarh Moradabad Chandigarh Central Delhi Jhansi Vadodara Mumbai Suburban North Delhi Bareilly Saharsa East Delhi Jhansi South delhi Central Delhi Nalanda Central Delhi Lucknow Central Delhi Begusarai	Sindhudurg	Mumbai	
Haora Dhanbad North Delhi Azarngarh Moradabad Chandigarh Central Delhi Jhansi Vadodara Mumbai Suburban North Delhi Bareiliy Saharsa East Delhi Jhansi South delhi Central Delhi Nalanda Central Delhi Begusarai	Mumbai	Lucknow	
North Delhi Azarngarh Moradabad Chandigarh Central Delhi Jhansi Vadodara Mumbai Suburban North Delhi Bareiliy Saharsa East Delhi Jhansi South delhi Central Delhi Nalanda Central Delhi Begusarai	Sindhudurg	Thane	
Moradabad Chandigarh Central Delhi Jhansi Vadodara Mumbai Suburban North Delhi Bareiliy Saharsa East Delhi Jhansi South delhi Central Delhi Nalanda Central Delhi Lucknow Central Delhi Begusarai	Haora	Dhanbad	
Central Delhi Jhansi Vadodara Mumbai Suburban North Delhi Bareilly Saharsa East Delhi Jhansi South delhi Central Delhi Nalanda Central Delhi Lucknow Central Delhi Begusarai	North Delhi	Azamgarh	
Vadodara Mumbai Suburban North Delhi Bareiliy Saharsa East Delhi Jhansi South delhi Central Delhi Nalanda Central Delhi Lucknow Central Delhi Begusarai	Moradabad	Chandigarh	
Suburban North Delhi Bareilly Saharsa East Delhi Jhansi South delhi Central Delhi Nalanda Central Delhi Lucknow Central Delhi Begusarai	Central Delhi	Jhanst	
North Delhi Bareiliy Saharsa East Delhi Jhansi South delhi Central Delhi Nalanda Central Delhi Lucknow Central Delhi Begusarai	Vadodara	Mumbal	
Saharsa East Delhi Jhansi South delhi Central Delhi Nalanda Central Delhi Lucknow Central Delhi Begusarai		Suburban	
Jhansi South delhi Central Delhi Nalanda Central Delhi Lucknow Central Delhi Begusarai	North Delhi	Barelly	
Central Delhi Nalanda Central Delhi Lucknow Central Delhi Begusarai	Saharsa	East Deihi	
Central Delhi Lucknow Central Delhi Begusarai	Jhanst	South delhi	
Central Delhi Begusarai	Central Delhi	Nalanda	
	Central Delhi	Lucknow	
Central Delhi Bhojpur	Central Delhi	Begusaral	
	Central Delhi	Bhojpur	

North Delhi Araria Saharsa Amritsar Mahbubnagar Guntur "The largest recipient was the Delhi region, which accounted for more than half of migration in 2015–16, while Uttar Pradesh and Bihar taken together account for half of total out-migrants."

Raigarh

Ratnagiri

Source: Economic Survey, 2016-17

under the PDS. Ration card required to access benefits under the PDS is issued by state governments and is not portable across states.

 Lack of affordable housing and basic amenities in urban areas



► The proportion of migrants in urban population is 47%.

- ► In 2015, the Ministry of Housing and Urban Affairs identified migrants in urban areas as the largest population needing housing in cities.
- There is inadequate supply of low-income ownership and rental housing options. This leads to the spread of informal settlements and slums.

Political Exclusion

In a state of continuous drift, migrant workers are deprived of many opportunities to exercise their political rights. Because migrants are not entitled to vote outside of their place of origin, some are simply unable to cast their votes.

Health and Living Conditions

➤ The migrant labourers working in unorganized sectors work and live in unhygienic and polluted environment are vulnerable to health problems and sickness

• Child Labour

 Children who migrate along with their families are deprived of the free and subsidised, educational facilities offered by the state resulting in Child Labour.

What are the steps taken by the government?

- The Prime Minister Awaas Yojana (PMAY) is a central government scheme to help the economically weaker section and low-income group access housing.
- Pradhan Mantri Garib Kalyan Yojana with a financial package of Rs. 1.7 lakh crore was launched to help poor, needy and unorganised sector workers of the country. Under this package, 80.00 crore people have been provided 5 Kg. Wheat/Rice and 1 Kg. pulses.
- Government of India has launched PM SVANidhi Scheme to facilitate collateral free working capital loan upto Rs.10,000/- of one-year tenure, to approximately, 50 lakh street vendors, to resume their businesses
- One Nation One Ration Card System is an important citizen centric reform. Its implementation ensures availability of ration to beneficiaries under National Food Security Act (NFSA) and other welfare schemes, especially the migrant workers and their families, at any Fair Price Shop (FPS) across the country.

INDIA'S LABOUR FORCE AND NATIONAL INCOME DATA

CONTEXT:

NSSO's latest annual Periodic Labour Force Survey (PLFS) report for 2021-22 (July-June) has been released recently.

Key highlights:

• The report underlines that the agricultural sector employs **45% of the nation's labour force**.

- Though this figure is less from the **46.5% in 2020-21**, but still on the higher note than in 2018-19, which was as low as **42.5%**.
- It is obvious that the pandemic's economic impacts, which compelled a reverse exodus to the farms, haven't completely subsided.
- The share of labour force employed in agriculture fell from 64.6% in 1993-94 to 42.5% in 2018-19.
- The biggest decline, **from 58.5% to 48.9%**, happened between 2004-05 and 2011-12.
- The rate of decline in the **employment share of agriculture** after 2011–12 has moderated, and after 2018–19, it actually increased.

Reasons for shifting trend:

- **High value-addition**: agriculture is able to employ such large chunks of people primarily because of high value addition;
 - ► Eg. The sector's share in terms of value-added or GVA is as high as 19%. .
- Low value addition in Manufacturing: Manufacturing has low value addition when compared to the agriculture sector
 - ► **Eg**. Manufacturing had a 35.4% overall proportion of GVO but only a 15.8% relative share of GVA.
- Service sector driven growth: Indian economic growth is driven towards the service sector, which requires high skills.
 - **Eg.** Service sector is the biggest contributor to the GDP but employs less than 30%.
- Skills development: Indian labour is not skilled enough to meet modern industrial needs. The employment options for workers with lower skill levels are limited.
- **MSME under stress**: Compared to large companies, MSME have a four times higher labour intensity. But they deal with numerous issues like credit crunch etc.

Way forward:

- Boosting labour intensive sectors: Labour-intensive industries should be supported, such as those in the food processing business, the leather industry, the garment industry, the electronics industry, the gem and jewellery industry, the financial services industry, and the tourism industry.
- **Building up MSME**: The MSME sector needs to be supported and developed. Regulation easing and financial aid are helpful. Priority should also be given



WEEK - 2 (MARCH, 2023)

to easy credit availability. MUDRA could lead to the creation of necessary jobs in India.

- Skill development: various government schemes like Pradhan Mantri Kaushal Vikas Yojana should be implemented in letter and spirit
- **Labour reforms**: Reforming the labour market requires changing the strict labour laws that currently exist. In a nation where labour is in plentiful supply, corporations in India favour capital-intensive modes of production.

INDIA'S INCREASING POWER DEMANDS

CONTEXT:

In 2022, India's power demand grew about 8%, at nearly double the pace of the Asia Pacific region something to more than 149.7 terawatt-hours (TWh) from 2021.

Power consumption data:

- Over **80% of India's energy needs** are met by three fuels: **coal, oil and solid biomass**.
- Coal has underpinned the expansion of electricity generation and industry, and remains the largest single fuel in the energy mix.
- **Oil consumption and imports** have grown rapidly on account of rising vehicle ownership and road transport use.
- Biomass, primarily fuel wood, makes up a declining share of the energy mix, but is still widely used as a cooking fuel.

Despite recent success in expanding coverage of **LPG in rural areas**, 660 million Indians have not fully switched to modern, clean cooking fuels or technologies.

Impacts of more consumption:

- India is the third-largest global emitter of CO2, despite low per capita CO2 emissions.
- The carbon intensity of its power sector in particular is well above the global average.
- Additionally, particulate matter emissions are a major factor in air pollution, which has emerged as one of India's most sensitive social and environmental issues: in 2019, there were well over one million premature deaths related to ambient and household air pollution.

Sources of power generation in India:

- The Overall generation in the country has been increased from 1048.673 during 2014-15 to 1107.386 BU* during the year 2015-16.
- The Category wise **generation performance as follows**: Thermal Increased by 7.45 %, Hydro Reduced by 6.09 %, and Nuclear Increased by 3.63 %.
- Overall leader of electricity generation in India is thermal power (68%) of total power generation in India.

Why power demand is increasing?

- Household consumption increasing: Homes account for a fourth, while agriculture has accounted for over a sixth in the recent years.
- Consumption patterns vary wildly by state and season:
 - ► A heatwaves and easing of COVID-19 curbs drove power demand higher in the first half of 2022.
 - ➤ Erratic weather and a jump in agricultural activity were among the most prominent reasons behind the high growth in the second half of last year, according to a federal power ministry presentation reviewed by Reuters.
 - > Uneven dry spells in few Northern states.
- Higher Industrial demand: Industrial and commercial activity account for more than half of India's annual power use.
- Less sustainability of renewable energy sources: The powers sources like solar are less obtained for high energy consumption like for AC or a washing machine in households and large machines in Industries'.
 - ► Even they are liable to more installation cost.

Government interventions:

- Under the Union Budget 2022-23, the government announced the issuance of sovereign green bonds, as well as conferring infrastructure status to energy storage systems, including grid-scale battery systems.
- In the **Union Budget 2022-23**, the government allocated Rs. 19,500 crore (US\$ 2.57 billion) for a PLI scheme to boost the manufacturing of high-efficiency solar modules.
- Electrification in the country is increasing with support from schemes like Deen Dayal Upadhyay Gram Jyoti Yojana (DDUGJY), Ujwal DISCOM Assurance Yojana (UDAY), and Integrated Power Development Scheme (IPDS).
- India has launched the Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM)
 Scheme to provide energy and water security, dedieselise the farm sector and generate additional income for farmers by producing solar power.



HIMALAYAN TOURISM & THREATS

CONTEXT:

The Himalayan region offers conditions suitable for several activities, including recreation, adventure or religious pilgrimages. However, some areas suffer due to mass tourism, while others have not fully reached their tourism potential.

About:

- Tourism is also an important source of **income and livelihood for people** living in Himalayan regions.
- According to government think tank NITI Aayog, as of 2018, West Bengal sees the highest inflow of tourists, while the north western and central Himalayan states and Union Territories (UTs) of Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Assam, Meghalaya, Sikkim and Tripura also record large numbers.
- Over the last year, the Union government has laid emphasis on promoting sustainable tourism in the Himalayan region.

Issues:

- **Ecology under stress:** Due to population growth, industrial and commercial activity, the fragile ecology is under a great stress.
 - The common threats are deforestation, soil erosion and pressure on restricted land.
- **Climate Change:** Climate change is impacting people and threatening wildlife in the Himalayas.
 - Many glaciers are melting and forming lakes prone to bursting and downstream flooding.
 - Traditional water springs have dried up, limiting the water supply.

Unplanned Urbanisation:

- The unplanned and unauthorised construction has led to the blocking of the natural flow of water, which eventually results in frequent landslides.
- ➤ Himalayan slopes have become extremely unstable in the last few decades due to increased construction, hydroelectric projects, and the widening of the National Highway.

Habitat Loss:

► The conversion of forests for agriculture and exploitation for timber, fodder and fuelwood threaten the biodiversity in this region.

Construction of Dams:

 The creation of numerous dams without due environmental impact assessment could lead to the submergence of arable lands and biodiversity hotspots.

- Not only would valley habitats be inundated by the creation of reservoirs, but villagers would be displaced.
- The effect of dams on fisheries and fish ecology is also a matter of concern.

Recent Government efforts:

- National Strategy for Sustainable Tourism and Responsible Traveller Campaign: It was launched in a summit organised in partnership with UN Environment Programme and the Responsible Tourism Society of India by Union Ministry of Tourism.
- Swadesh Darshan 2.0: It is a centrally sponsored scheme for development of theme-based tourist circuits in the country to include a vision to set up sustainable and responsible tourism in various projects and initiatives in the Himalayan region.

National Mission for Sustaining the Himalayan Ecosystem

• About:

- ➤ National Mission for Sustaining the Himalayan Ecosystem is among the eight national missions in India's first ever National Action Plan on Climate Change.
- Ecological significance of Himalayas, as stated in the mission document:
 - ► Himalayan ecosystem is vital to the ecological security of the Indian landmass, which includes
 - > Preservation of rich biodiversity,
 - Providing water security as the world's third ice pole after the Arctic and the Antarctica and
 - Influencing weather patterns throughout the subcontinent.

• The mission attempts to address some important issues concerning:

- Himalayan Glaciers and the associated hydrological consequences,
- > Biodiversity conservation and protection,
- ► Wild life conservation and protection,
- Traditional knowledge societies and their livelihood and
- Planning for sustaining of the Himalayan Ecosystem.
- Regulation of tourist inflows:



WEEK - 2 (MARCH, 2023)

➤ The mission proposed measures to "regulate tourist inflows into mountain regions to ensure that these remain within the carrying capacity of the mountain ecology."

CORAL REEFS

CONTEXT:

Coral reefs are continuously damaging due to increase in ocean temperature and Climate Change.

What are coral reefs?

- Coral reefs are essentially just big limestone structures built by thousands of tiny coral creatures called 'polyps.'
- Coral reefs are the colonies of **tiny living creatures** that are found in oceans.
- They are the underwater structures that are formed of **coral polyps** that are held together by **calcium carbonate.**
- Coral reefs are also regarded as the tropical rainforest of the sea and occupy just 0.1% of the ocean's surface but are home to 25% of marine species.
- They are usually found in shallow areas at a depth less than 150 feet. However, some coral reefs extend even deeper, up to about 450 feet.

Types of Coral reefs in India:

India has three major prevailing types of coral reefs:

- Fringing reefs: Fringing reefs evolve and develop near the continent and remain close to the coastline. These reefs are separated from the coastline by small, shallow lagoons. They are the most commonly found reefs in the world.
- **Barrier reefs**: Barrier reefs are found offshore on the continental shelf. They usually run parallel to the coastline at some distance. A deep and wide lagoon is located between the coastline and the barrier reef.
- **Atolls**: Atolls are formed on mid-oceanic ridges. They are shaped circularly or elliptically and are surrounded by seas on all four sides and have shallow waters in the center **called a lagoon**.

Factors affecting Coral Reefs:

GSSCORE

- Extreme climate conditions: High temperature of water leads to the declination of these corals as they cannot survive in high temperature. As estimated by scientists, most of the coral reefs of the world will soon decline with the increasing rates of ocean warming.
- Overfishing: It is another major concern as it is leading to an ecological imbalance of the coral reefs.
- Coastal development: Development of coastal

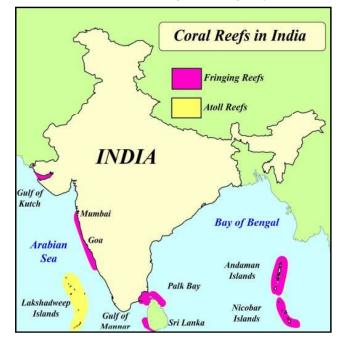
infrastructure and tourist resorts on or close by these coral reefs causes significant damages.

- Pollution: The toxic pollutants which are dumped directly into the ocean can lead to the poisoning of the coral reefs as it increases the nitrogen level of the seawater leading to an overgrowth of algae.
- Sedimentation: Construction along the coasts and islands lead to soil erosion increasing the sediments in the river. As a result, it can smother corals by depriving them of the light needed to survive.

Importance of Coral Reefs:

Coral Reefs play an important role in the following ways.

- They protect coastlines from the damaging effects of wave action and tropical storms.
- They provide habitats and shelter for many marine organisms.
- They are the source of nitrogen and other essential nutrients for marine food chains.
- They assist in carbon and nitrogen-fixing.
- They help with **nutrient recycling**.
- The study of coral reefs is essential for scientifically testable records of climatic events over the past million years.
- The fishing industry depends also on coral reefs. Many fish spawn there, and juvenile fish spend time there before making their way to the open sea.
- The **Great Barrier Reef** generates more than **1.5 billion** dollars annually for the Australian economy from fishing and tourism.
- Coral reefs are also key indicators of global ecosystem health. They serve as an early warning sign of what may happen to other less sensitive systems, such as river deltas if climate change is not urgently addressed.



FOREST CERTIFICATION IN INDIA

CONTEXT:

In India, the forest certification industry is growing at 8 to 10 per cent every year, mainly catering to exporters wanting to tap the US and European markets that have strict regulations to ensure the legality of wood products coming in.

About:

- Just **5 per cent** of India's natural forests are currently certified, all in Uttar Pradesh.
- Forest certification is a sunrise industry, driven by a o growing preference to avoid any product that can be linked to deforestation or illegal logging.
- Only processed wood is allowed to be **exported from** o India, not raw wood.

Forest Certifications:

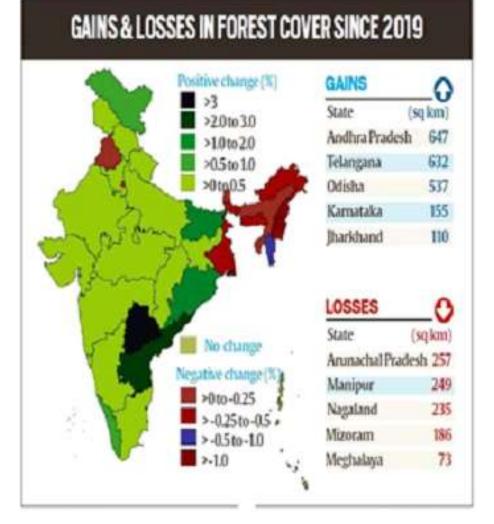
Forest certification, a global movement initiated in ົ 1990s after Rio Earth Summit, is a market-based nonregulatory conservation tool designed to promote sustainable management of forests and trees outside forests by an independent third party.

As several developed countries have put trade o restrictions on import of non-certified timber, non-timber forest products and wood-based goods into their countries, getting sustainable forest management certificates has become mandatory for exports.

Significance and the need for forest certification:

- Forest certification has been accepted as an efficient tool for forest management world over.
- Given that forests of India serve important ecological, o economic and social functions that also provide livelihood to over 275 million forest dependent people of this country, there is need for certification for sustaining and enhancing these roles of forests.







 The council of Programme for Endorsement of Forest Certification (PEFC) has decided to recognised forest-certification scheme developed specifically for Indian forests by Network for Certification and Conservation of Forests (NCCF), an Indian nonprofit.

Key features:

- The Certification Standard for Sustainable Forest Management developed by NCCF is the first forest-certification scheme from India to get global recognition.
- The Standards evolved were India specific and was based on key elements of existing models in India such as the **Bhopal India Process** of the IIFM, the **National Working Plan Code** and the provisions contained in the National Forest Policy for the promotion of afforestation, sustainable utilization of forest products and growth of the **forest-based industries**.

Network for Certification and Conservation of Forests (NCCF):

NCCF is a non-profit organisation came into existence in January 2015 as a Society to have a globally aligned certification program.

• It was developed within India and addresses the concerns for sustainable management of forests and the plantations, while at the same time making the Indian wood and forest fibre based industry competent globally.

Programme for Endorsement of Forest Certification:

 Programme for Endorsement of Forest Certification (PEFC) is the world's largest forest certification system which seeks to transform the way forests are managed globally and locally to ensure that all of us can enjoy the environmental, social and economic benefits that forests offer.

"ORGANOID INTELLIGENCE" - REVOLUTIONARY BIOCOMPUTERS

CONTEXT:

Recently, researchers presented their ideas for "organoid intelligence," a potentially groundbreaking new field of study that aspires to develop Biocomputers.

Bio-computers and their functioning:

- Researchers plans to produce "bio-computers" by fusing brain organoids with contemporary computing techniques.
- They intend to grow the organoids inside flexible frameworks attached with several electrodes, where they will be combined with machine learning (similar to the ones used to take EEG readings from the brain).
- These structures will be able to administer electrical stimuli to simulate sensory sensations as well as record the neuronal firing patterns.
- Then, using machine learning techniques, the response pattern of the neurons and their impact on human behaviour or biology will be analysed.

What is Organoid Intelligence (OI)?

- OI is an emerging multidisciplinary field working to develop biological computing using 3D cultures of human brain cells (brain organoids) and brainmachine interface technologies.
- It will be possible by scaling up current brain organoids into complex, durable **3D** structures enriched with cells and genes associated with learning, and connecting these to next-generation input and output devices and AI/machine learning systems.

What are organoids?

- Organoids are stem cell-derived, microscopic, self-organized three-dimensional tissue cultures. Such cultures can be developed to mimic a much of an organ's intricacy.
- These are tiny organ-like structures that frequently resemble the embryonic phases of a developing tissue but lack the full functional maturity of human organs.

Opportunities of 'bio-computers':

- Biological basis of human cognition: stem cells from sufferers of cognitive or neurodegenerative problems can be used to create brain organoids.
 - The biological underpinnings of human cognition, learning, and memory can be discovered by comparing the information on brain anatomy, connections, and signalling between "healthy" and "patient-derived" organoids.
- Drug development: They might aid in understanding the biology of and developing drugs for severe neurodegenerative and neurodevelopmental disorders including Parkinson's disease and microcephaly.



Are 'bio-computers' ready for commercial use?

The answer to the questions lies in the below given concerns:

- Smaller size: Today, brain organoids are around three millionths the size of a real human brain, with an average cell count of less than 100,000 and a diameter of less than 1 mm.
 - Therefore, increasing the size of the brain organoid and adding non-neuronal cells involved in biological learning will both help the brain's computing capabilities.
- Microfluidic systems: microfluidic systems are not yet

developed by the researchers, which help to transport oxygen and nutrients, and remove waste products.

- Advanced analytical techniques: Scientist have not yet developed the advanced analytical techniques (with help from machines) to correlate the structural and functional changes in the brain organoids to the various output variables.
- Long-term memory: The challenge in front of researchers is to develop long term memory, which they would achieve within 1-25 years.
- Ethical issues: There is no Agency to deal with the ethical issues arising from the bio-computers. Ethical guidelines have to be developed for the ethical use of bio-computers.





SECTION: 'B' (SPECIALS)

CURRENT AFFAIRS

SPECIAL

MANUAL SCAVENGING AND LAWS

CONTEXT:

- In a recent video which got viral from Dharampuri region of Tamil Nadu, shows the dark reality of India's caste system and still prevalent manual scavenging in parts of the country by a specific caste group.
- This is a violation of Fundamental rights and Laws made against scavenging.

What is Manual Scavenging?

- Manual evacuation refers to the process of removing human and animal waste from dry toilets and transporting it for disposal.
- As per the "Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013 (MS Act, 2013)" manual scavenging means manually cleaning, carrying, disposing of, or handling in any manner, human excreta in an insanitary latrine.
 - It is prohibited with effect from December 2013.
- It was officially banned by the anti-manual scavenging Act in 1993 as a degrading practice.

Threats

- Risk of death from asphyxiation due to poisonous gases
- Disease exposure: cholera, hepatitis, meningitis, jaundice, skin disorders and even cardiovascular diseases.
- Commonly associated people: Dalit men and women (of various sub-castes, most notably Valmiki).
 - According to the Socio Economic Caste Census 2011, 1.8 million families have joined the scam to earn a living.
- Not only does it violate basic human rights to life but it also poses a serious threat to human health.

The data:

- In April 2022, the Centre said that there have been **no manual scavenging deaths** in the country but 161 workers died **cleaning sewers and septic tanks** in the last three years.
- Tamil Nadu reported the **highest number of such deaths** at 27 followed by 26 in Uttar Pradesh, according to government data.

Laws related to manual scavenging:

 The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013prohibits the construction or maintenance of unhygienic toilets, and the hiring of any person by hand cleaning or hazardous cleaning of sewer pipes and swimming pools.

- **Article 21**: The Article guarantees the 'Right to Life' and also with dignity.
- Others
 - Swachh Bharat Abhiyaan (Clean India initiative)
 - Safaimitra Suraksha Challenge
 - Swachhta Abhiyan App
- Amendment Act: Introduction of 'The Prohibition of Employment as Manual Scavengers and their Rehabilitation (Amendment) Bill, 2020' as part of the National Action Plan for the Department of Justice and Empowerment.
 - Mechanical Cleaning: The Bill proposes to completely clean sewage systems and provide better occupational safety and compensation in the event of an accident.

Currently, engaging any person for the purpose of hazardous **cleaning of sewer pipes and sewerage tanks** by any person or agency is punishable by imprisonment for up to five years or a fine of **up to Rs.5 lakh or both**.

Who is to be blamed?

- Unemployment
- Social pressure
- Failure in implementing laws by administrative bodies like panchayats in villages and municipal corporations in cities (At times, these bodies even perpetuate the practice).

How it is an Institutional failure?

- Persistence in various provinces: Recent examples from communities involved in genocide in the provinces of Gujarat, Madhya Pradesh, Maharashtra, Rajasthan, and Uttar Pradesh underscore the government's failure to eradicate genocide and eradicate deeply entrenched ideologies and practices that still bind members of affected communities.
- Law Enforcement: India's constitution prohibits the

18

SPECIAL

practice of non-compliance, and the Bill of Rights, 1955, prohibits forcing anyone to use hand-scratching. The Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act, 1993 declared that the employment of hand guards and the construction of dry toilets would be punishable by fines and imprisonment. Yet its persistence reflects the failure of the law and the country.

- **Deaths**: Safai Karmachari Andolan, reported 1,269 people killed in the 2014-16 genocide.
 - Reports of deaths of workers involved in cleaning and repairing pits in the mines, during the 'Swachh Bharat' period show the state's failure to eradicate the practice.

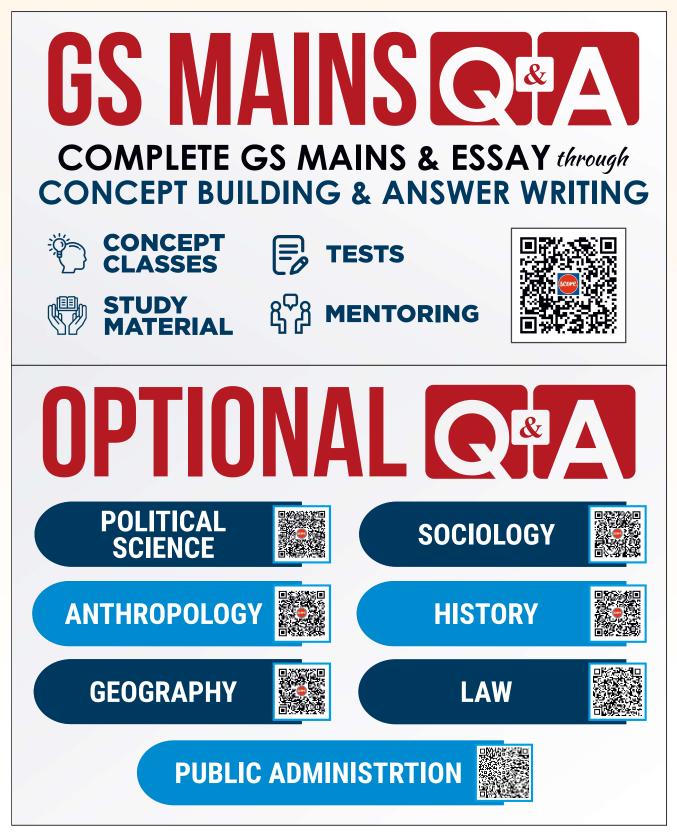
Recent developments:

- The Ministry of Social Justice and Empowerment will amend the law for making machine cleaning mandatory, whereas the Ministry of Housing and Urban Affairs has launched the 'SafaimitraSuraksha Challenge.'
- Technological development:
 - The Indian Institute of Technology (IIT) Madras has developed a robot with the aim to eliminate manual scavenging in India.
 - Around **10 units** will be deployed across Tamil Nadu and the plan is to put them to use in Gujarat and Maharashtra next.



GSSCORE





1B, Second Floor, Pusa Road, Karol Bagh, New Delhi - 110005 (Beside Karol Bagh Metro Station Gate No. 8) 𝔅 8448496262⊕ iasscore.in

SECTION: 'C' (PRELIMS)

CURRENT AFFAIRS

_____ To Attempt _____ Weekly Current Affairs Test, Visit

www.iasscore.in

WEEK - 2 (MARCH, 2023)

PRELIMS

BURIAL SITES OF CHARAIDEO

CONTEXT:

Assam's pyramid-like structures known as moidams or maidams have met all the technical requirements of UNESCO's World Heritage Centre.

About the development:

- The mound burial system of the **Ahoms**, known as **Maidams**, in and around **Charaideo hills** are located in the **Sivasagar district** geographically but are now recognized as the pride historical resource identified with the new district Charaideo.
- They enshrine the mortal remains of the members of **Ahom Sawargadeos (Kings)** who ruled large swathes of the present-day State and beyond for some 600 years until the advent of the **British in the 1820s.**
- Moidams (or Maidams) represent the late medieval (13th-19th century CE) mound-burial tradition of the Tai Ahoms in Assam, which lasted almost 600 years.
- Charaideo, more than 400 km east of Guwahati, was the first capital of the Ahom dynasty founded by Chao Lung Siu-Ka-Pha in 1253.
- Out of **386 Moidams** explored so far, 90 royal burials at Charaideo are the best preserved, representative, and most complete examples of this tradition.
- The Charaideo Moidams enshrine the **mortal remains of Ahom royalty** along with the objects they cherished.
- But after the 18th century, the Ahom rulers adopted the **Hindu method of cremation**, later entombing the cremated bones and ashes in a Moidam at Charaideo.



The nomination of the Charaideo Moidams coincided with the **400th birth anniversary** of **Lachit Borphukan**, the most celebrated Ahom general who thwarted the attempts of Mughal emperor Aurangzeb's army to capture Assam.

The Ahom Dynasty:

- The Ahom dynasty (1228–1826) ruled the Ahom kingdom in present-day Assam, India for nearly 598 years.
- The dynasty was established by Sukaphaa, a Shan prince of Mong Mao who came to Assam after crossing the Patkai Mountains.
- The rule of this dynasty ended with the **Burmese** invasion of Assam.
- In external medieval chronicles, the kings of this dynasty were called Asam Raja, whereas the subjects of the kingdom called them Chaopha or Swargadeo.
- The Ahom rule lasted till the British annexed Assam in 1826, following the **Treaty of Yandabo**.

	Famous battles of Ahoms		
Battle of Alaboi (1669)	 In 1669, Aurangzeb dispatched the Rajput Raja Ram Singh I to recapture territories won back by the Ahoms. The battle of Alaboi was fought between the Ahom armed force and Mughals trespassers on August 5, 1969, in the Alaboi Hills near Dadarain North Guwahati. 		
Battle of Saraighat (1671)	 The battle of Sarai Ghat was one of the most significant warfare in medieval India. The Battle of Saraighat was a naval battle fought between 1671between the Mughal Empire (led by the Kachwaha king, Raja Ram Singh I), and the Ahom Kingdom (led by Lachit Borphukan) on the Brahmaputra river at Saraighat, Guwahati, Assam. Although weaker, the Ahom Army defeated the Mughal Army through brilliant uses of the terrain, clever diplomatic negotiations to buy time, guerrilla tactics, psychological warfare, military intelligence and by exploiting the sole weakness of the Mughal forces (navy). The Battle of Saraighat was the last battle in the last major attempt by the Mughals to extend their empire into Assam. Though the Mughals managed to regain Guwahati briefly later after a Borphukan deserted it, the Ahoms wrested control in the Battle of Itakhuli in 1682 and maintained it till the end of their rule. 		



UNESCO Heritage Site:

• The list of World Heritage Sites is maintained by the international 'World Heritage Programme' which is administered by the UNESCO World Heritage Committee.

- A World Heritage Site is a place that is listed by UNESCO for its special **cultural or physical significance.**
- Criteria for inclusion in the List of UNESCO World Heritage Sites:
 - Any heritage or any historical site has to be first on the tentative list to be a part of UNESCO's World Heritage sites.
 - Once it makes it to the tentative list, then the proposal is sent to UNESCO for inclusion in the final List of UNESCO World Heritage Sites, only if the site:
 - Contains significant natural habitats for the conservation of biological diversity, including threatened species of outstanding universal value from the point of view of science or conservation.
 - Associates with events, living traditions, ideas, beliefs, and artistic & literary works of outstanding universal significance etc.

IRAN'S LITHIUM DEPOSIT

CONTEXT:

The Iranian Ministry of Industry, Mine and Trade (MIMT) has informed that a deposit located in the western province of Hamedan contains some 8.5 million metric tons of lithium ore.

About Lithium deposits:

- Iran discovered the **second largest** lithium reserves.
- According to the US Geological Survey, the world's largest identified lithium resources (not counting Iran) are as follows: Bolivia, 21 million tons; Argentina, 20 million tons; Chile, 11 million tons; Australia, 7.9 million tons; China, 6.8 million tons.
- Rising global lithium demand and surging prices have drawn increased interest in the so-called 'lithium triangle' that spans parts of Argentina, Bolivia and Chile.
- Lithium has become the new 'white gold' as the demand for high performing rechargeable batteries is rising.

Lithium: properties & Uses:

• It is a chemical element with the **symbol Li.**

Other Major Sites:

- The major mica belts are in Rajasthan, Bihar, and Andhra Pradesh.
- Pegmatite (igneous rocks) belts in **Odisha and Chhattisgarh.**
- Brines of Sambhar and Pachpadra in Rajasthan, and Rann of Kachchh in Gujarat.

• It is a soft, silvery-white metal.

• It is **highly reactive and flammable**, and must be stored in mineral oil.

Lithium in India:

 India recently established inferred lithium resources of 5.9 million tons in the Reasi district of Jammu and Kashmir.

WARRIOR SHIELD FTX JOINT EXERCISE

CONTEXT:

The South Korean and U.S. militaries announced to hold their biggest joint field exercises in five years, as the U.S. flew a long-range B-1B bomber to the Korean Peninsula in a show of force against North Korea.

Background:

- The two countries last conducted Foal Eagle in 2018.
- Recently, both the countries have been expanding their joint military exercises in the face of an evolving North Korean nuclear threat.
 - The United States flew a supersonic bomber over ally South Korea as part of an enormous combined aerial exercise involving hundreds of warplanes in a show of force meant to intimidate North Korea over its barrage of ballistic missile tests.
 - ➤ The US has fired **B-1B** missiles demonstrated its determination and ability to use the full range of its military capabilities, including nuclear, to defend its allies.

North Korea is highly sensitive to the deployment of **B-1Bs**, which are capable of carrying a large conventional weapons payload.

• It responded to the previous flights of multiple **B-1Bs** by test-launching two short-range missiles.



Details of the exercise:

 The South Korean and U.S. military will conduct the Freedom Shield exercise, a computer-simulated command post training, to strengthen their defense and response capabilities, and separate large-scale joint field training exercises called 'Warrior Shield FTX.'

 It is going to be conducted from March 13 to 23, 2023.

Why such an exercise being conducted?

- North Korea test-fired more than **70 missiles** in the year 2022, the most ever in a single year, and several more this year.
- Many of the missiles were **nuclear-capable weapons** designed to strike the U.S. mainland and South Korea.
- The Hwasong-15 is one of North Korea's three existing ICBMs (intercontinental ballistic missiles), all of which use liquid propellants that require pre-launch injections and cannot remain fueled for extended periods.
- The North is pushing to build a solid-fuelled ICBM, which would be more mobile and harder to detect before its launch.

Nuclear Diplomacy:

- **Nuclear diplomacy** deals with prevention of nuclear war and peacetime proliferation.
- It also deals with the use of threat of nuclear warfare to achieve **diplomatic goals**.

SWAYATT INITIATIVE

CONTEXT:

Recently, a function was held to commemorate the success of "SWAYATT", an initiative to promote 'Start-ups, Women and Youth Advantage Through e-Transactions'(SWAYATT) on Government E-Marketplace (GeM) in New Delhi.

About:

24

- SWAYATT is an initiative to promote Start-ups, Women and Youth Advantage Through eTransactions on Government e Marketplace (GeM).
- This will bring together the key stakeholders within the Indian entrepreneurial ecosystem to Government
 e-Marketplace the national procurement portal.

GeM portal:

 GeM is an Online Market platform was setup in 2016 to facilitate procurement of goods and services by the government ministries, departments, public sector undertakings (PSU) etc.

- It has been envisaged as National Procurement Portal of India.
- It has been developed by **Directorate General of Supplies and Disposals (Ministry of Commerce and Industry)** with technical support of National e-governance Division (Ministry of Electronic and Information Technology).

SWAMIH INVESTMENT FUND

CONTEXT:

SWAMIH Investment Fund have so far raised Rs.15,530 crore to provide priority debt financing for the completion of stressed, brownfield, and residential projects that are registered with Real Estate Regulatory Authority (RERA).

What is the SWAMIH investment fund?

- The Special Window for Affordable and Mid-Income Housing (SWAMIH) Investment Fund I is a social impact fund created with the objective of completing stressed and stalled Real Estate Regulatory Authority (RERA) registered projects.
- This is a government backed fund that was set up as a Category-II AIF (Alternate Investment Fund) debt fund registered with SEBI, launched in 2019.
- The Fund is sponsored by the Ministry of Finance, Government of India, and is managed by SBICAP Ventures Ltd., a State Bank Group company.
- Fund is considered as the lender of last resort for distressed projects as it funds first-time developers, established developers with troubled projects, developers with a poor track record of stalled projects, customer complaints and NPA accounts, and even projects where there are litigation issues.

Alternative Investment Fund (AIF):

- AIF refers to any **fund created or incorporated in India** that is a privately pooled investment vehicle that collects funds from professional investors, whether they are domestic or foreign, for the purpose of investing them in accordance with a defined investment strategy for the benefit of its investors.
- AIF **does not include** funds covered under the SEBI **(Mutual Funds)** Regulations, 1996, SEBI (Collective Investment Schemes) Regulations, 1999 or any other regulations of the Board to regulate fund management activities.

INDIA'S HIGHER EDUCATION ACCREDITATION SYSTEM

CONTEXT:

The National Assessment and Accreditation Council (NAAC) is facing allegations of irregularities in the way it operates.

 The chairperson of NAAC's executive committee, Bhushan Patwardhan, resigned after repeatedly demanding an independent inquiry into the functioning of the council.

National Assessment and Accreditation Council (NAAC):

- NAAC an *autonomous body* under the University Grants Commission (UGC).
- It assesses and accredits Higher Education Institutions (HEIs).
- Functions:
 - NAAC is entrusted with assessing the quality of India's higher educational institutions.
 - It awards grades to colleges and universities on the basis of multi layered assessment process
- Parameters of accreditation:
 - Its parameters include curriculum, faculty, infrastructure, research and financial wellbeing.
 - ► The grades issued by NAAC range from A++ to C.
 - If an institution is graded D, it means it is not accredited.

Is NAAC's accreditation mandatory for institutions?

- Though UGC has issued multiple circular and asked all the universities to mandatorily undergo NAAC's assessment, the process still remains largely voluntary.
- All higher education institutions must attain the highest level of accreditation during the next 15 years, according to the National Education Policy (2020).
- However, As per AISHE REPORT, only 418 universities and 9,062 colleges out of the 1,113 universities and 43,796 colleges were NAAC-accredited as on January 31, 2023.

CRYPTOCURRENCY TRADE TO BE COVERED UNDER MONEY LAUNDERING LAW

CONTEXT:

In a gazette notification, the Finance Ministry has mentioned that the anti-money laundering legislation is going to be applied to crypto trading, safekeeping and related financial services.

About the development:

- The government has imposed money laundering provisions on cryptocurrencies or virtual assets as it looks to tighten oversight of digital assets.
- After this, Indian crypto exchanges will have to report suspicious activity to the Financial Intelligence Unit India (FIU-IND).
- Need of the initiative: There is a global trend of requiring digital-asset platforms to follow antimoney laundering standards similar to those followed by other regulated entities like banks or stock brokers.

Status of Crypto currencies:

 A cryptocurrency is a medium of exchange, such as the rupee or the US dollar, but is digital in format that uses encryption techniques to both control the creation of monetary units and to verify the exchange of money.

Bitcoin is the largest and most well-known **cryptocurrency** in the world.

- Strong cryptography is used to protect transaction records, regulate the production of new coins, and confirm ownership transfers.
- Generally, it is not issued by a **central authority** and doesn't **exist in tangible form** (like paper money).
- Cryptocurrencies typically use decentralized control as opposed to centralized digital currency and central banking systems.
- The majority of cryptocurrencies are seen as alternative currencies or methods of financial exchange. Currently, they fall beyond the purview of official monetary policy and are not regulated by national governments.
 - Recently, El Salvador became the first nation in the world to accept Bitcoin as legal money in September 2021.

Prevention of Money Laundering Act (PMLA), 2002:

- Background:
 - ➤ The PMLA was enacted in response to India's global commitment (Vienna Convention) to combat the menace of money laundering.
- About:
 - ➤ It is a criminal law enacted to prevent money laundering and to provide for confiscation of property derived from, or involved in, moneylaundering and related matters.
 - ► It forms the core of the **legal framework** put in place by India to combat Money Laundering.
- The provisions of this act are applicable to all financial institutions, banks (Including RBI), mutual funds, insurance companies, and their financial intermediaries.
- Recent Amendments:
 - Clarification about the Position of Proceeds of Crime: Proceeds of the Crime not only include the property derived from scheduled offence but would also include any other property derived or obtained indulging into any criminal activity relate-able or similar to the scheduled offence.
 - ➤ Money Laundering Redefined: Money Laundering was not an independent crime rather depended on another crime, known as the predicate offence or scheduled offence.
 - The amendment seeks to treat money laundering as a stand-alone crime.
 - Under **Section 3 of PMLA**, the person shall be accused of money laundering if in any manner that person is directly or indirectly involved in the proceeds of the crime.
 - Concealment
 - Possession
 - Acquisition
 - Use or projecting as untainted property
 - Claiming as untainted property
 - Continuing Nature of Offence: This amendment further mentioned that the person will be considered to be involved in the offence of money laundering till the time that person is getting the fruits of activities related to money laundering as this offence is of a continuing nature.

Issues in policy framework:

• **High volatility**: Cryptocurrency has a volatile nature and is speculative. High investment quantities cause market volatility, which causes price fluctuations and the potential for significant losses for investors. Absence of Ombudsmen: Consumers are exposed to transactional and informational risks because there is currently no place where a user may ask for support or a way to resolve a grievance relating to crypto assets.

 Absence of a regulatory framework: Lack of regulatory authority has raised the likelihood of fraud, endangering investor protection and the flow of money throughout the economy.

Way forward:

- **International collaborations**: Crypto assets are by definition borderless and require international collaboration to prevent regulatory arbitrage.
- **Defining Cryptocurrency**: Cryptocurrencies should be explicitly defined as securities or other financial instruments under the relevant national laws.
- Central Bank Digital Currency (CBDC): The establishment of a Central Bank Digital Currency (CBDC) for India in the form of the Digital Rupee was announced by the Indian Finance Minister. It will significantly strengthen India's digital economy.

INDIA'S PROGRESS IN BIO-FUELS

CONTEXT:

The Centre's SATAT scheme for bio-CNG plants at the Indian Oil Corporation (IOC) has blamed the pandemic for the delays in meeting target of setting up 5,000 bio-CNG plants by 2023-24.

Sustainable Alternative towards Affordable Transportation (SATAT):

- Under the SATAT scheme, individual entrepreneurs should put up the compressed bio-gas (CBG) plants. The CBG produced at these plants will be delivered through cylinder cascades to the network of OMC fuel stations for sale as an alternative green transport fuel.
- To increase returns on investment, the business owners might market the additional by-products produced by these plants separately, such as carbon dioxide and bio-manure.
- Goal: To manufacture compressed biogas (CBG) from trash and biomass sources such farm residue, cow dung, sugarcane press mud, municipal solid waste (MSW), and waste from sewage treatment plants, and to make CBG available on the market for use as a clean fuel.



WEEK - 2 (MARCH, 2023)

About CBG:

• Bio-gas is naturally created by **the anaerobic decomposition of waste and biomass sources** such agricultural residue, bovine dung, sugarcane press mud, municipal solid waste, and sewage treatment plant waste, among others.

- After purification, it is compressed and called compressed bio-gas. It contains more than 95% pure methane.
- When it comes to composition and energy potential, compressed bio-gas is a perfect match for natural gas that is sold in stores.
- Compressed bio-gas is a renewable alternative to fossil fuels for use as an automotive fuel since it has a calorific value of about 52,000 KJ/kg and other characteristics similar to those of CNG.

Issues:

The progress on the effective functioning of the scheme has been slow and tardy. Up till now, 40 plants have been commissioned and 80 retail outlets are selling bio-CNG. This is primarily because of following reasons:

- **Feedstock**: Feedstock is not present in adequate amount for smooth functioning of the plants.
 - ► Eg. Radius of feedstock collection and distribution of bio-CNG to 25 km which later increased to 150km due to lack of demand.
- **Infrastructure**: There is absence of enough infrastructures to collect the waste. Thus inadequate infrastructure is acting as the hurdle for the
- **Technology**: India does not have the **state of the art technology** which could efficiently produce CBG at the low cost. Cost efficient technology is very costly and is absent in the local market.
- **Absence of Market**: CBG has does not have proper market in the transport sector. Till the time CBG does not have well established market in transport sector, distribution will remain a major challenge.
- Distribution of the gas.

Government efforts:

- Union Ministry of Environment, Forest and Climate Change has issued a circular to include bio-CNG in the "white category" (of non-polluting industries that do not require environmental clearances).
- Government issues Specifications for the sale of organic fertilizers. Union Ministry of Fertilisers will issue clear specifications for both solid and liquid organic fertilisers.

 Government plans to connect 400 cities with the CNG grid in five years, which will take care of the distribution.

 Several state governments are already offering incentives like subsidised land and electricity for bio-CNG plants and feedstock assurance.

GLOBAL GREENHOUSE GAS MONITORING INFRASTRUCTURE

CONTEXT:

U.N.'s World Meteorological Organisation has come up with a new Global Greenhouse Gas Monitoring

Infrastructure to fill a key gap in the fight against 'Climate change: standardised, real-time tracking of

greenhouse gases.'

Background:

- Greenhouse gas concentrations in the atmosphere are at record high.
- The three major greenhouses gases are carbon dioxide, methane and nitrous oxide. Of those, CO2 accounts for around 66% of the warming effect on the climate.
- The rise in CO2 from 2020 to 2021 was greater than the average growth rate over the previous ten years, and the largest year-over-year increase in methane since observations began.
- As part of the 2015 Paris Climate Accord, nations committed to keeping global warming "well below" two degrees Celsius (3.6 degrees Fahrenheit) over levels observed between 1850 and 1900, and 1.5C if feasible.
- Thus, the agreement's climate change mitigation measures required stronger scientific justification.

About Global Greenhouse Gas Monitoring Infrastructure

- It aims to provide better ways of measuring planetwarming pollution and help inform policy choices.
- The new platform from the WMO aims to reduce uncertainty over the final destination of greenhouse gas emissions by integrating space-based and surface-based sensing technologies.
- The data on how the planet's atmosphere is changing should become much more rapid and precise as a result.



INTERNATIONAL BIG CAT ALLIANCE (IBCA)

CONTEXT:

India has proposed to launch a mega global alliance under its leadership to protect big cats and assured support over five years with guaranteed funding of \$100 million.

Background:

- India is the only nation in the world to have tigers, lions, leopards, snow leopards, and cheetahs in the wild since we acquired the cats.
- Except for pumas and jaguars, India has all the big cats here today.
- India taking the initiative to unite all nations in the big cat area under a UN-like organisation is only fitting.
- Alliance was "inspired by the arrival of cheetahs in India" last year from Namibia.

About International Big Cat Alliance (IBCA):

- Tiger, lion, leopard, snow leopard, puma, jaguar, and cheetah are the seven main big cats that IBCA will aim to protect and conserve.
- 97 "range" countries, which house these large cats' native habitat, as well as other interested countries, international organisations, etc., will be able to join the alliance.
- **Aim**: "dissemination of information on benchmarked practises, capacity building, resources repository, research and development, awareness creation, etc., on the preservation and conservation of big cats.
- **Functions**: "Advocacy, partnership, knowledge e-portal, capacity building, eco-tourism, partnerships amongst specialist groups, and fund tapping" will be some of its main activities.
- Governance structure:
 - ► **General Assembly**: IBCA will comprise a General Assembly consisting of all member countries
 - Council: Council of at least seven but not more than 15 member countries elected by the General Assembly for a term of 5 years
 - Secretariat: IBCA will also have a secretariat which will deal with all administration work.
 - Upon the recommendation of the Council, the General Assembly will appoint the IBCA Secretary General for a specific term.

DIGITAL VILLAGES PROGRAMME

CONTEXT:

The Reserve Bank of India (RBI) has launched a programme to adopt 75 villages and convert them into 'digital payment enabled' villages.

Details of the programme:

- The programme has been launched as 'Har Payment Digital' mission amid the 'Digital Payments Awareness Week (DPAW) 2023.'
- Under the initiative, payment system operators (PSOs) will adopt these villages across the country and conduct two camps in each of these villages with an aim to improve awareness and on-**board merchants** for digital payments.
- To initiate a 75 Digital Villages programme through adoption of 75 villages there will also be involvement of village level entrepreneurs.

Policy Initiatives to promote Digital Payments

 Ministry of Finance has taken a major initiative in drafting a Bill for amendment of Payment and Settlement Systems Act, 2007, as envisaged in the Report of the Committee on Digital Payments 2016

• RBI has taken four major policy initiatives:

- National Electronic Funds Transfer (NEFT) system Settlement at half-hourly intervals
- Master Directions on Prepaid Payment Instruments (PPIs)
- ► Rationalisation of Merchant Discount Rate
- ► Storage of Payment System Data

How digital ecosystem is changing India?

- Jan-Dhan-Aadhaar-Mobile (JAM) trinity: Ensuring delivery of government schemes to its beneficiaries without leakage or misuse.
- SVAMITVA Yojana: Provided digital land records to the rightful owners by leveraging the power of drones and GIS technologies.
- **Bharat Net:** provided high-speed broadband to the entire village.
- Common Service Centers (CSCs): offering banking, insurance, state and central government services, passport and PAN card services, digital literacy, rural eCommerce services and pre-litigation advice etc.

WEEK - 2 (MARCH, 2023)

CURRENT AFFAIRS

• **Digital payments revolution**: UPI and Aadhaar-Enabled Payment Systems (AEPS), AEPS-based micro-ATM at CSCs and post offices.

Recent Government measures for regulating the sector:

- In 2022 itself, the Ministry of Electronics and Information Technology (MeitY) has announced the
 - ► draft amendment to the IT Rules 2021 (June 2022)
 - the draft India Data Accessibility and Use Policy (February 2022)
 - National Data Governance Framework Policy (May 2022)
 - ► the New cyber security directions (April 2022)
- India is also working on a complete overhaul of its technology policies and is expected to soon come out with a replacement of its IT Act, 2000, which is expected to look at ensuring net neutrality and algorithmic accountability of social media platforms, among other things.

ORNAMENTAL FISH AQUACULTURE

CONTEXT:

ICAR-National Bureau of Fish Genetic Resources recently provided technical assistance as women organised groups for ornamental fish aquaculture (NBFGR). Ornamental fish farming is anticipated to assist women in the Lakshadweep islands in taking the initial step towards independence through coordinated activities.

About ICAR-National Bureau of Fish Genetic Resources (NBFGR):

- Its mandate is to undertake research related to the conservation of fish germplasm resources of the country.
- The Institute's mission is to evaluate and conserve fish genetic resources for the protection of intellectual property, sustainable use, and future generations.

About aquaculture:

 Aquaculture is the breeding, rearing, and harvesting of fish, shellfish, algae, and other organisms in all types of water environments.



- Aquaculture is a method used to produce food and other commercial products, restore habitat and replenish wild stocks, and rebuild populations of threatened and endangered species.
- There are two main types of aquaculture—marine and freshwater.
- Aquaculture is an approximate aquatic equivalent to agriculture—that is, the rearing of certain marine and freshwater organisms to supplement the natural supply.

LIFE CYCLE OF WORKING WOMEN INDEX

CONTEXT:

The World Bank has released India's score for index on the life cycle of a working woman obtained down to 74.4 out of a possible 100.

A score of 100 on the Index means that women are on an equal standing with men on all the eight indicators being measured.

Highlights of the index:

- Title of the report: The index was developed based on report named 'Women, Business and the Law 2023'.
- India scored higher than the 63.7 average for the South Asian region, though lower than Nepal which had the region's highest score of 80.6.
- Out of the 190 economies covered in the Index, only 14 scored a perfect 100: Belgium, Canada, Denmark, France, Germany, Greece, Iceland, Ireland, Latvia, Luxemburg, The Netherlands, Portugal, Spain and Sweden.
- For India, the Index used data on the laws and regulations **applicable in Mumbai.**



India's Women workforce:

- Unemployment trends for women in India:
 - Only a quarter of the females in the country are either working or seeking jobs. Female LFPR is 23.3%.

- Fall in LFPR was more for females than males.
- ► The decline in LFPR for females was steeper in rural areas than urban.
- Considerable wage gap between men and women; highest in Asia.
- OECD Economic Survey of India: The OECD survey found that India has the largest difference between employment rates of women and men among OECD nations at 52 percentage points.
 - Unemployment among young, educated women in urban areas is quite higher.
 - Employment gap between women and men is highest in the 15 to 29 years bracket.
 - Underemployment and poor job quality remain important issues.
- Status in other countries: In China, 43.5% women are in the workforce, in Sri Lanka 34.5%, Bangladesh 29.5% and in India 24.3%, according to World Bank data.
- Women in politics: India ranks 20th from the bottom in terms of representation of women in Parliament. Only 9% of MPs or MLAs are women. The 17th Lok Sabha has 14% women representation.

Issues:

India lags behind when it comes to laws affecting women's pay, laws affecting women's work after having children, constraints on women starting and running a business, gender differences in property and inheritance, and laws affecting the size of a woman's pension.

Reasons to Low Female Labour Force Participation (FLFP):

- Structural, social and cultural factors contribute to low FLFP.
- There is growing feminisation of agriculture tying women in this field due to socio-cultural restrictions, lack of alternate skills, and movement of men to cities away from agriculture.
- Unpaid care and domestic work hours of Women in India are second highest in world.
- Women in India do almost 10 times as much unpaid work as men.
- Social barriers to women's mobility

INDIAN RAILWAYS TIES UP WITH ISRO FOR REAL-TIME TRAIN TRACKING

CONTEXT:

The Indian Railways is utilising data analytics for seamless transit. Under the Real Time Train Information System (RTIS) project, it has started a project that will now allow real-time tracking of train movements with the help of satellite photography.

About:

 Railways have integrated their systems with NavIC and Bhuvan while using bandwidth provided by ISRO.

Bhuvan portal: It is a particular kind of web portal, **developed by ISRO**, used to locate and gain access to geographical information (geospatial information) and related geographic services (display, modification, analysis, etc.) online.

- Every locomotive is equipped with a gadget and a **SIM card** that broadcasts the train's precise location to a satellite and allows for feedback. A three-second update is made to the movement.
- When it's necessary to determine a train's precise location to provide assistance in the event of an accident, flood, or landslide, real-time rail tracking can be helpful.

About Navigation with Indian Constellation (NavIC):

- ISRO has established a regional navigation satellite system to meet the positioning, navigation and timing requirements of the nation
- ISRO has established the constellation of 7 satellites operating 24*7.
- Three satellites of the constellation are placed in geostationary orbit, and four satellites are placed in inclined geosynchronous orbit with equatorial crossing.
- NavIC offers two services: Standard Position Service (SPS) for civilian users and Restricted Service (RS) for strategic users.
- NavIC coverage area includes India and a region up to 1500 km beyond Indian boundary.
- NavIC signals are designed to provide user **position** accuracy better than 20m and timing accuracy better than 50ns.
- NavIC SPS signals are interoperable with the other global navigation satellite system (GNSS) signalsnamely GPS,Glonass,Galileo, and BeiDou



SUPERNOVA AND EFFECTS

CONTEXT:

A team of researchers has unveiled new light on the explosion of a star in a supernova more than 450 years ago using equipment by the United States National Aeronautics and Space Administration.

• The blast was visible to people on our planet way back in 1572.

Details of the study:

- The shock wave from the blast is still propagating through the cosmos from the initial explosion, meaning it can be observed from Earth even now.
- The team used NASA's Imaging X-ray Polarimetry **Explorer (IXPE)** to study polarised X-rays from the supernova remnant.
- **Agencies involved**: IXPE is collaboration between NASA and the Italian Space Agency with partners and science collaborators in 12 countries.
- Key findings:
 - The blast from the supernova named Tycho released as much energy as the Sun would emit over ten billion years.
 - ► The explosion blasted particles out into space near the speed of light.
 - Researchers used IXPE to reveal the geometry of the magnetic fields close to Tycho's shock wave.
 - Understanding the magnetic field geometry allows scientists to investigate further how particles are accelerated there.
 - The overall direction of the magnetic fields in supernova remnants appears to be radial, stretched out along a path extending outward.

Tycho Supernova (Death of a Star):

- In 1572, Danish astronomer **Tycho Brahe** was among those who noticed a new bright object in the constellation Cassiopeia.
- Tycho showed this "new star" was far beyond the Moon, and that it was possible for the universe beyond the Sun and planets to change.
- Rather it signaled the death of a star in a supernova, an explosion so bright that it can outshine **the light** from an entire galaxy.
- This particular supernova was a Type Ia, which occurs when a white dwarf star pulls material from, or merges with, a nearby companion star until a violent explosion is triggered. The white dwarf star is obliterated, sending its debris hurtling into space.

What does a Supernova means?

• A supernova is the explosion of a star. It is the largest explosion that takes place in space.

Where Do Supernovas takes place?

- Supernovas are often seen in other galaxies. But supernovas are difficult to see in our own Milky Way galaxy because dust blocks our view.
- In 1604, **Johannes Kepler** discovered the last observed supernova in the Milky Way.
- NASA's **Chandra telescope** discovered the remains of a more recent supernova.
- It exploded in the Milky Way more than a hundred years ago.

What Causes a Supernova?

- A supernova happens where there is a change in the **core, or center, of a star**.
- A change can occur in two different ways, with both resulting in a supernova.
- The first type of supernova happens in **binary star systems**.
 - Binary stars are two stars that orbit the same point. One of the stars, a carbon-oxygen white dwarf, steals matter from its companion star.
 - Eventually, the white dwarf accumulates too much matter. Having too much matter causes the star to explode, resulting in a supernova.
- The second type of supernova occurs at the end of a single star's lifetime.
 - As the star runs out of nuclear fuel, some of its mass flows into its core. Eventually, the core is so heavy that it cannot withstand its own gravitational force.
 - The core collapses, which results in the giant explosion of a supernova.
 - The sun is a single star, but it does not have enough mass to become a supernova.

Significance:

- One kind of supernova has shown scientists that we live in an expanding universe, one that is growing at an ever increasing rate.
- Scientists also have determined that supernovas play a key role in distributing elements throughout the universe.

When the star explodes, it shoots **elements and debris** into space. Many of the elements we find here on Earth are made in the core of stars.

These elements travel on to form new stars, planets and everything else in the universe.







INTEGRATED TEST SERIES



Single Source of Integrated Preparation for PRELIMS & MAINS

- 🕝 Total 96 Tests, (45 Prelims & 51 Mains Tests)
- One on one doubt clearing sessions
- Approach Classes & Test discussion classes

More than just the Jest Series

2 YEARS



Single Source of Integrated Preparation











iasscore.in

8 8448496262

1B, Second Floor, Pusa Road, Karol Bagh, New Delhi - 110005 (Beside Karol Bagh Metro Station Gate No. 8)

SECTION: 'D' (SHORT NEWS)

CURRENT AFFAIRS

WEEK - 2 (MARCH, 2023)

SHORT NEWS

Sishupalgarh ancient site



Context: Land mafias damage rampart of ancient fortified **city of Sisupalgarh**.

About:

- Sisupalgarh is thought to have been built around the **7th to 6th century BCE.**
- It served as the capital of the Kalinga kingdom.
- It was an important centre of **trade and commerce** during ancient times.
- Fortified city was **architectural and engineering marvels** of the ancient India.
- The urban core was 1.2 km by 1 km in size and was moated all around. The city has a special water management system.
- This is the only fortified site in India having eight gateways.
- When **King Kharavela** began to restore the city 2,100 years ago, in the fourth to third century BCE, the fortress was completed.
- The excavation of the Sisupalgarh site was first taken up in 1948, when it was declared a Centrally Protected Monument under the provisions of the Ancient Monuments Preservation Act, 1904.

Hybrid Solar Eclipse



A hybrid solar eclipse will happen on **April 20, 2023.**

About:

- A hybrid solar eclipse is one which will appear either as **an annular eclipse or a total eclipse** depending on the viewer's location.
- During an annular eclipse, the Moon will not fully cover the Sun and as a result, it will appear as a **dark disk superimposed** on the Sun.

Types of solar eclipse:

There are three main types of solar eclipses:

- **Total solar eclipse:** A total solar eclipse is visible from a small area on Earth.
- **Partial solar eclipse**: This happens when the Sun, Moon and Earth are not exactly aligned.
- **Annular solar eclipse**: An annular eclipse happens when the Moon is farthest from Earth.



Salt flats



In **salt flats** across the world, the salt on the surface forms ridges that join together in a patchwork of **pentagons and hexagons**, this remains same for all regions they found in.

• The captivating patterns have been photographed from Bolivia, Chile, China, India (in the Rann of Kutch), Iran, Tunisia, and the U.S.

About Salt Flats:

- A salt flat is a **natural landscape** in which a large area of flat land is covered by salt.
- The world's most well-known salt flat is the **Salar de Uyuni in** Bolivia.

How are they formed?

- A salt flat forms from a natural water body whose recharge rate is lower than the evaporation rate.
- Over time, all the water evaporates, leaving behind the dissolved minerals, usually salts. They reflect sunlight strongly and thus appear bright.
- The underlying soil is highly saline: even if the water table is shallow, the groundwater is too salty for humans to drink.

How do the shapes form?

- The researchers began with the hypothesis that the salt on the surface is influenced by the salt flowing through the soil below.
- The groundwater in the **soil is saline** but the distribution of salt is not uniform.
- The salinity is highest near the top of the soil and decreases towards the bottom.
- The researchers found that the salt penetrated deeper into the soil exactly below the ridges, and remained shallow under the flat areas.

Hot lightning strikes



Soaring **global temperatures** could lead to more "**hot lightning**" strikes in many parts of the world, a new study has found.

Key findings:

- The lightning is a major cause of triggering wildfires and is responsible for producing the largest wildfires in some regions.
- Lightning-caused wildfires are dangerous as they spread rapidly before a strong response can be implemented and release substantial amounts of carbon, nitrogen oxides and other trace gases into the atmosphere.
- The researchers **analysed 5,858 selected lightningignited fires** based on satellite images of US wildfires between 1992 and 2018 and found that approximately 90 per cent of them might have started by "hot lightning" strikes.



SHORT NEWS

Also known as long continuing current (LCC), this type of lightning strike can last from around 40 milliseconds to nearly a third of a second. What is Hot lightning? Lightning is a rapid and massive electrical discharge that takes place between storm clouds and the ground, or within the clouds themselves. Scientists believe that for lightning to occur, positive and negative charges must separate within a cloud. When does it take place? According to the National Oceanic and Atmospheric Administration (NOAA), when the water droplets in the bottom part of the cloud are moved upwards, where the much colder atmosphere freezes them into small ice crystals. **The Windsor framework** The UK government under Prime Minister Rishi Sunak reached a landmark deal with the European Union (EU) on post-Brexit trade rules that will govern Northern Ireland. About: The 'Windsor Framework' will replace the Northern Ireland Protocol, which had proved to be among the thorniest of Brexit fall-outs, creating problems both economic and political. The framework has two crucial aspects - the introduction of a green lane and red lane system for goods that will stay in Northern Ireland and those that will go to the EU respectively; and the 'Stormont Brake', which allows Northern Ireland lawmakers and London to veto any EU regulation they believe affects the region adversely. Hallmark Unique Identification (HUID) number Before implementation of 6 digit Hallmark Unique Identification (HUID) number, hallmarking of Gold jewellery becomes mandatory by the Central government. UNIOUE HALLMARKING ID PURITY OF 8151.000 (HUID IS A SIX-DIGIT GOLD ALPHA-NUMERIC CODED **Background:** A 6 digit HUID was introduced from 01 July 2021 and all articles hallmarked post 01 July 2021 have to be 22K916 XXXXXX hallmarked with HUID only. After introduction of HUID, hallmark consisted of 3 marks viz, BIS logo, purity of the article and six-digit alphanumeric HUID. Each hallmarked article has unique HUID number which is traceable.



GSSCORE

WEEK - 2 (MARCH, 2023)

	About:
	 According to the Department of Consumer Affairs website, hallmark consists of 3 symbols which give information.
	 the first symbol is the BIS logo
	 the second symbol indicates purity and fineness
	 the third symbol is the HUID
	• Every item of jewellery will be issued a HUID number at the moment of hallmarking, and each one will be unique.
	• At the Assaying & Hallmarking centre, the jewellery is hand stamped with the unique number.
Nano liquid DAP	
	Prime Minister hailed the government's approval to nano liquid DAP fertiliser , mentioning it an important step towards making life easier for farmers.
	What is Nano Urea?
	• Nano Urea is a nanotechnology based revolutionary Agri-input which provides nitrogen to plants .
	• Nano Urea is a sustainable option for farmers towards smart agriculture and combat climate change.
	 Nano urea is a patented and indigenously made liquid that contains nanoparticles of urea, the most crucial chemical fertiliser for farmers in India.
	• A single half-litre bottle of the liquid can compensate for a 45kg sack of urea that farmers traditionally rely on, it is claimed.
	 Nano urea (Liquid) contains 4 % nanoscale nitrogen particles.
	• Nanoscale nitrogen particles have a small size (20-50 nm); more surface area and number of particles per unit area than conventional urea.
Windfall tax	
	The Government has marginally hiked windfall tax on locally produced crude oil to Rs.4400 per tonne from Rs.4350 per Tonne.
	About:
	• It was introduced in 2022.
	• Windfall taxes are designed to tax the profits a company
	derives from an external, sometimes unprecedented event— for instance, the energy price-rise as a result of the Russia-Ukraine conflict.
	• These are profits that cannot be attributed to something the firm actively did, like an investment strategy or an expansion of business.
	• The United States Congressional Research Service (CRS) defines a windfall as an "unearned, unanticipated gain in income through no additional effort or expense".

WEEK - 2 (MARCH, 2023)

	 Objectives: The introduction of the windfall tax as a way to rein in the "phenomenal profits" made by some oil refiners who chose to export fuel to reap the benefits of skyrocketing global prices while affecting domestic supplies. Global Scenario: Besides India, a wave of countries including the United Kingdom, Italy, and Germany have either already imposed a windfall profit tax on super normal profits of energy companies or are contemplating doing so.
NISAR satellite	
Deployed Radar Antenna Reflector	Recently, NASA announced that the NISAR satellite has been handed over to India for other additions.
(~12 m diameter)	About NISAR:
GPS Antenna	 NISAR (NASA-ISRO Synthetic Aperture Radar) is being jointly developed by NASA and ISRO.
	• The launch is scheduled for 2024 .
	 NASA-ISRO SAR (NISAR) is a Low Earth Orbit (LEO) observatory.
WI KI W	Purpose:
Deployed Radar Antenna Boom (-9 m length) Deployed Solar Array S-band SAR Electronics	 NISAR will map the entire globe in 12 days and provide spatially and temporally consistent data for understanding changes in Earth's ecosystems, ice mass, vegetation biomass, sea level rise, groundwater, and natural hazards including earthquakes, tsunamis, volcanoes, and landslides.
Spacecraft Bus (I3K) L-band SAR	• It carries L and S dual band Synthetic Aperture Radar (SAR), which operates with the Sweep SAR technique to achieve large swaths with high-resolution data.
Electronics	• The SAR payloads mounted on Integrated Radar Instrument Structure (IRIS) and the spacecraft bus are together called an observatory.
Exercise Shinyuu Maitri	
	The Indian Air Force (IAF) is participating in Exercise Shinyuu Maitri with the Japan Air Self Defence Force (JASDF).
	About the exercise:
P-5445-4-	• Exercise Shinyuu Maitri is a bilateral military exercise between Indian Air Force (IAF) and Japan Air Self Defence Force (JASDF).
adult and the a subde	• The exercise is being organized on the sidelines of the Indo-Japan Joint Army Exercise, Dharma Guardian.
THE REAL FRANKING	• The IAF contingent is participating in the exercise with one C-17 Globemaster III
"MAN"	• The first phase of the exercise consists of discussions on transport operations and tactical manoeuvering, followed by the second phase of flying drills by IAF's C-17 and JASDF C-2 transport aircraft.
	• The exercise will enhance mutual understanding and interoperability between the two air forces.



SHORT NEWS

Dusky Tetraka



Dusky Tetraka has been spotted for the first time in 24 years.

About:

- The **Dusky Tetraka**, a small olive-coloured and yellowthroated mysterious songbird.
- The bird, which some feared to be extinct, was rediscovered by an expedition team searching the tropical forests of north-eastern Madagascar.
- The Dusky Tetraka has a history of mistaken identity largely because it closely resembles the Spectacled Tetraka.

Mugger Crocodile (Crocodylus Palustris)

Anthropogenic threats like **illegal fishing and sand mining** pose a threat to the mugger crocodiles (Crocodylus plaustris) of the Rapti river flowing along the **Chitwan National Park (CNP)** in south-central Nepal, contiguous to the Valmiki Tiger Reserve in Bihar.

About:

- The Mugger Crocodile (Crocodylus Palustris) also known as the Indian crocodile has a body covered in brown scales and has the widest snout of all the different crocodile species.
 - The Mugger crocodile looks like an alligator due to its snout.
 - They are native to the freshwater settings of **southern Iran and India.**
 - They can be found in rivers, lakes, hill streams, and village ponds.
 - The Mugger crocodile's diet consists of fish, reptiles, birds, insects, and mammals.
 - They are opportunistic feeders. They are considered vulnerable to extinction due to habitat destruction and illegal hunting practices by humans.
 - The Mugger crocodile has a lifespan of 44 years.
 - Crocodilia is an order of large, semiaquatic, carnivorous, solitary reptiles that first appeared **95 million years** ago.
 - Crocodilia, surprisingly, are most closely related to birds, as the only two remaining survivors from the Archosauria age.
 - Crocodilia have members such as **crocodiles and** alligators.

 Yellowstone National Park

 Yellowstone National Park, celebrating its 151st anniversary and contains large biodiversity.

 About

 • American national park Yellowstone NP is situated in the western part of the country, primarily in Wyoming's northwest corner and spreading into Montana and Idaho.



SHORT NEWS



- In addition to being the first national park in the United States, Yellowstone is considered to be the **first national park of the world**.
- The park is renowned for both its abundant wildlife and geothermal features, with Old Faithful geyser being one of its most well-known.
- Even though it represents a variety of biomes, the **subalpine forest** is the most prevalent.
- It corresponds to the South Central Rockies forests ecoregion.
- Moreover, the region serves as the unique location where the western United States' three largest river basins merge.
- The rivers of the Snake-Columbia basin, Green-Colorado basin, and Missouri River Basin all begin as snow on the Continental Divide as it weaves across Yellowstone's peaks and plateaus.
- It is home to multiple mega fauna like grizzly bears, wolves, and free-ranging herds of the endangered bison and elk.

Jerdon's narrow-mouthed frog (Uperodon montanus)



Jerdon's narrow-mouthed frog (*Uperodon montanus*) has been re-spotted in western ghats.

• Since it was last studied in 1934 by a British scientist, the species **faded into oblivion**.

About

Odisha.

About:

- It is a species of narrow-mouthed frog (family Microhylidae) endemic to the Western Ghats of India.
- This frog is considered a montane species and is restricted to higher altitude ranges of 800-1,700 metres,
- They are distributed from near **Wayanad** south across the Palghat and the Shencottah gaps to the Agasthyamalai hills.
- It is classified as '**Near Threatened'** in the IUCN Red List of Threatened Species.
- Its tadpoles are which means they feed on other species.
- **Rain-water filled tree holes** are the favoured microhabitat of these frogs.

Extensive fishing off the **Coromandel Coast** could be forcing the great seahorse to migrate laboriously **toward**

Seahorses are **tiny fishes** that are named for the shape of their head, which looks like the head of a tiny horse. There are **46 species** of seahorses reported worldwide.

Sea Horse (Hippocampus kelloggi)





CURRENT AFFAIRS WEEKLY	TNEWS
	 The coastal ecosystems of India house nine out of 12 species found in the Indo-Pacific, one of the hotspots of seahorse populations that are distributed across diverse ecosystems such as seagrass, mangroves, macroalgal beds, and coral reefs. These nine species are distributed along the coasts of eight States and five Union Territories from Gujarat to Odisha, apart from Lakshadweep and the Andaman and Nicobar Islands. The population of the great seahorse, which is among the eight species tagged 'vulnerable', is declining due to its overexploitation for traditional Chinese medicines and as ornamental fish, combined with general destructive fishing and fisheries bycatch.
World Wildlife Day 2023	Every 3rd of March , wildlife is celebrated all over the
	world for the UN World Wildlife Day .
	 About: This date was chosen as it is the birthday of CITES, the Convention on International Trade in Endangered Species of Wild Fauna and Flora, signed in 1973.
	 This year is the 50[™] Anniversary of signing the convention.
	 World Wildlife Day 2023 acknowledges the significant contribution CITES has made to sustainability, wildlife and biodiversity conservation and how this contribution has been enhanced by the bridge-building and partnership work done within the CITES framework.
WORLD WILDLIFE DAY	• It also recognizes how CITES has partnered and collaborated with other conventions, UN agencies and other organizations in the service of the broader UN goals, such as the Sustainable Development Goals and the Post-2020 Framework on Biodiversity.
3 MARCH	CITES:
	• CITES was drafted as a result of a resolution adopted in 1963 at a meeting of members of IUCN (The World Conservation Union).
	Parties to convention:
	 CITES is an international agreement to which States and regional economic integration organizations adhere voluntarily.
	 States that have agreed to be bound by the Convention ('joined' CITES) are known as Parties.
	 For many years CITES has been among the conservation agreements with the largest membership, with now 184 Parties.

