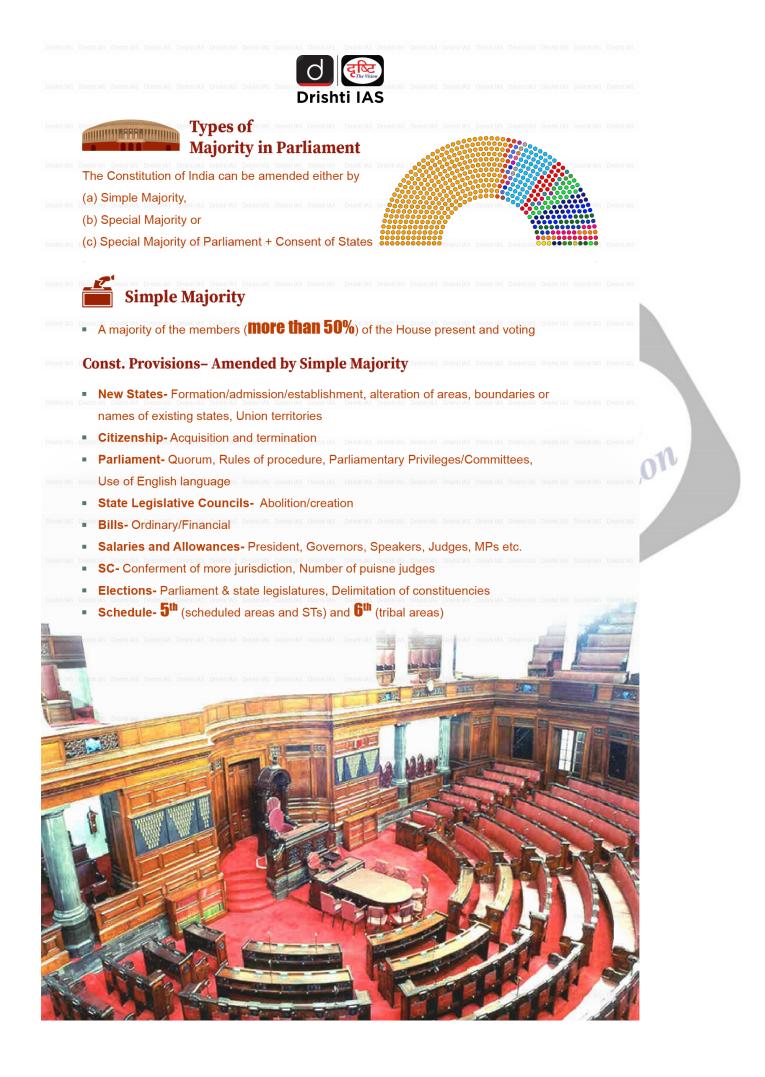


Simple Majority





India's Import Dependence on China

For Prelims: Galwan Valley Clash, India-China Tawang Engagement, Indo-China Trade Ties

For Mains: India-China trade ties, India's heavy import dependence and trade deficit with China, Countering import dependence on China

Why in News?

The recent Tawang skirmish has led to rising demands for severing trade ties with China. However, contrary to the demands, India's imports from China have seen a sharp increase post the Galwan Valley clash in 2020.

How are India's Trade Relations with China?

- One of the Biggest Partners: China is India's second biggest trading partner after the US.
 - In 2021-22, Indo-China bilateral trade was USD 115.83 billion 11.2% of India's total merchandise trade of USD 1,035 billion (Indo-US trade - 11.54%).
 - China as a trading partner stood at 10th position about 2 decades ago; this upward trend has begun since 2002-03.
 - China was India's top trading partner in 2011-12, from 2013-14 to 2017-18 and in 2020-21.

Note: Apart from the US and China, the other 8 countries and regions among India's top-10 trading partners during 2021-22 were UAE, Saudi Arabia, Iraq, Singapore, Hong Kong, Indonesia, South Korea, and Australia.

- Difference in Trade with China and US:
 - The major difference in India's trade with the US and China is that while India enjoys a trade surplus with the US (USD 32.85 bn 2021-22), with China India has a trade deficit of USD 73.31 bn (2021-22), the highest for any country.
 - While India's imports from China (between 2001-02 and 2021-2020) have increased from USD 2 bn to USD 94.57 bn, (in the same period) India's exports to China have increased from about USD 1 bn to only USD 21 bn.
- Major Imports:
 - The top commodities that India buys from China include:
 - Electrical machinery and equipment and parts thereof
 - Television image and sound recorders and reproducers and parts
 - Nuclear reactors, boilers, machinery and mechanical appliances and parts of thereof
 - Organic chemicals
 - **Plastic** and plastic articles
 - Fertilisers
 - The **most valued** Chinese imports are:
 - Personal computer (laptop, palmtop etc.) > monolithic integrated circuits-

digital > lithium-ion > solar cells > urea

- Major Exports:
 - In 2021-22, India's exports to China were 5% of its total shipments. The top exported commodities included:
 - Ores, slag and ash
 - **Organic chemicals**, mineral fuels/oils and products of their distillation, bituminous substances, mineral waxes;
 - Iron and steel
 - Aluminum and articles
 - Cotton
 - Among single items, light Naphtha was India's most valued export

What does Heavy Import Reliance on China Imply?

- From the perspective of the government, the **political and security challenges are deepened** when the state is dependent on importing products and services from an unfriendly country.
- India imports most of the <u>Active Pharmaceutical Ingredients (APIs)</u> it uses in its pharmaceutical industry from China. The cost of Chinese APIs is cheaper than the Indian ones even on the Indian market.
 - The depth of the problem was revealed during the Covid-19 pandemic when due to travel restrictions, exports of Chinese APIs to India were temporarily restricted and consequently India had to cut its exports of APIs too.
- Approximately 24% of coal energy generated in India may be coming from plants that are using critical equipment imported from China. This, therefore, may not necessarily be considered a strategic dependence, but is certainly a form of a security challenge.
 - While there are demands to limit or even block such imports from China, this would simply mean forcing private Indian power companies to suffer higher costs.

What has India done to Counter Over-Reliance on China?

- Ban on Chinese apps
- Scrutinising Chinese investments keeping Chinese companies out of <u>5G trials</u>
- Curbing opportunistic takeover of domestic firms FDI restriction on China
- Cutting import dependency for APIs Promotion of Bulk Drug Parks and PLI Scheme
- De facto ban on the **import of Chinese power equipments**
- Imposed <u>anti-dumping duties</u> On certain aluminium goods and chemicals, for 5 years to protect local manufacturers
- Identification of 12 sectors to make India a global supplier and cut import bills
 - These sectors are food processing, organic farming, iron, aluminium and copper, agrochemicals, electronics, industrial machinery, furniture, leather and shoes, auto parts, textiles, and coveralls, masks, sanitisers and ventilators.

Way Forward

- India cannot completely end its strategic dependence on the import of most crucial products. What it can do, however, is diversify this dependence by reducing China's role in it.
 - India can diversify dependence by working more with the U.S., Europe, South Korea and Japan. This way it will increase its reliance on countries with which it also enjoys good political relations.
- Providing further impetus to self-reliance in major sectors where India is a net-importer is a
 prudent way forward where technology and capital will have a huge role to play.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Q. "China is using its economic relations and positive trade surplus as tools to develop potential military power status in Asia". In the light of this statement, discuss its impact on India as her neighbour. **(2017)**

Status of Solar Power Projects

For Prelims: Scheme for Development of Solar Parks and Ultra Mega Solar Power Projects, Initiatives for Solar Energy

For Mains: Scheme for Development of Solar Parks and Ultra Mega Solar Power Projects, Challenges in Project Implementation, Status of Solar Energy, Initiatives for Solar Energy

Why in News?

Recently, the **Ministry for New and Renewable Energy** has reported that the government has so far sanctioned the development of <u>solar projects</u> with a capacity of nearly 39,000 MW but **only 25% have actually been commissioned so far.**

These solar projects were sanctioned under the 'Scheme for Development of Solar Parks and Ultra Mega Solar Power Projects'.

What is the Scheme for Development of Solar Parks and Ultra Mega Solar Power Projects?

About:

- The scheme was rolled out by the Ministry of New & Renewable Energy in 2014.
- Under this scheme, it was proposed to set up at least 25 Solar Parks and Ultra Mega Solar Power Projects targeting over 20,000 MW of solar power installed capacity within a span of 5 years starting from 2014-15.
 - The capacity of the Scheme was **enhanced from 20,000 MW to 40,000 MW**. These parks are proposed to be set up by 2021-22.
- Implementing Agency:
 - The implementing agency is termed as **Solar Power Park Developer (SPPD)**.
- Features:
 - The scheme envisages supporting the States/UTs in setting up solar parks at various locations in the country with a view to create required infrastructure for setting up of solar power projects.
 - The solar parks are developed in collaboration with the State Governments and their agencies, Central Public Sector Undertakings, and private entrepreneurs.

What are the Challenges in Solar Projects Commissioning?

- Hurdles in **acquisition of land** with clear title.
- A "mismatch" in the **time taken to set up a project** and the **infrastructure to route the power** produced to the grid.
- Environmental issues and the halt in economic activity due to <u>COVID-19</u>.
 - In recent years, the habitat of the <u>Great Indian Bustard</u>, a critically endangered species numbering less than 200 in Rajasthan, has been encroached upon by solar power projects particularly by transmission lines that endanger the bird.

The <u>Supreme Court</u> in April 2022, had directed that power companies lay **underground cables in solar parks in Rajasthan**, though few companies have actually complied. The government had told the Supreme Court that laying underground cables **would greatly raise the cost of solar power**.

What is the Overall Status of Solar Energy in India?

- As of October 2022, 61GW of solar power had been installed so far, according to numbers presented in Parliament.
- Further, India has set an **ambitious target to achieve a capacity of 175 GW worth of** renewable energy by the end of 2022 (100 GW was to be solar power), which expands to 500 GW by 2030. This is the world's largest expansion plan for renewable energy.
- India was the second-largest market in Asia for new solar PV capacity and third globally. It ranked fourth for total installations (60.4 GW), overtaking Germany (59.2 GW) for the first time.
- As of June 2022, **Rajasthan and Gujarat** were the top states for large-scale solar, accounting for 53% and 14% of installations, respectively, followed by Maharashtra with 9%.

What Initiatives has India Taken for Solar Energy?

- Solar Park Scheme:
 - The <u>Solar Park Scheme</u> plans to build a number of solar parks, each with a capacity of nearly 500 MW, across several states.
- Rooftop Solar Scheme:
 - The <u>Rooftop Solar Scheme</u> aims to harness solar power by installing solar panels on the roof of houses.
- Atal Jyoti Yojana (AJAY):
 - The AJAY scheme was launched in September 2016 for the installation of solar street lighting (SSL) systems in states with less than 50% of households covered with grid power (as per Census 2011).
- National Solar Mission:
 - It is a major initiative of the Government of India and State Governments to promote ecologically sustainable growth while addressing India's energy security challenge.
- SRISTI Scheme:
 - Sustainable rooftop implementation of Solar transfiguration of India (SRISTI) scheme to promote rooftop solar power projects in India.

International Solar Alliance (ISA):

• The **ISA** was conceived as a joint effort by **India and France** to mobilize efforts against climate change through the deployment of solar energy solutions.

UPSC Civil Services Examination Previous Year Question (PYQ)

Prelims

Q. Consider the following statements: (2016)

- 1. The International Solar Alliance was launched at the United Nations Climate Change Conference in 2015.
- 2. The Alliance includes all the member countries of the United Nations.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Ans: (a)

Exp:

- India and France launched the International Solar Alliance (ISA) to boost solar energy in developing countries.
- It was launched at the United Nations Climate Change Conference in Paris in November 2015 by the Indian Prime Minister and French President. Its secretariat is located in Gurugram, India. Hence, statement 1 is correct.
- At initial stage ISA was opened to membership of countries lying fully or partly between the Tropics of Cancer and Capricorn (torrid zone).
- In 2018, the membership of ISA was opened for all the UN members. However, all the member countries of the UN are not its members. Hence, statement 2 is not correct.
- Currently, 80 countries have signed and ratified the ISA Framework Agreement while 98 countries have signed the ISA Framework Agreement. Therefore, option (a) is the correct answer.

The Vision

Mains

Q. India has immense potential of solar energy though there are regional variations in its developments. Elaborate **(2020)**

Source: TH

Fusion Energy Breakthrough

For Prelims: Nuclear fusion, Difference between Nuclear Fusion & Nuclear Fission.

For Mains: Advantages of Nuclear Fusion.

Why in News?

Recently a few scientists at the Lawrence Livermore facility, the US have achieved a **net gain in energy from a nuclear fusion reaction**, which is seen as a big breakthrough.

• <u>China's Artificial Sun</u>, the Experimental Advanced Superconducting Tokamak (EAST) device replicates the nuclear fusion process carried out by the sun.

What was the Experiment?

- The experiment forced a minuscule amount of hydrogen into a peppercorn-sized capsule, for which scientists used a powerful 192-beam laser that could generate 100 million degrees Celsius of heat.
- It is also called 'Inertial Fusion'.
 - At some other places, including the international collaborative project in southern France called <u>ITER (International Thermonuclear Experimental Reactor)</u> in which India is a partner; very strong magnetic fields are used for the same purpose.

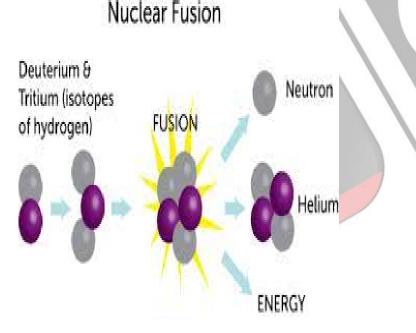
- The laser beam was hotter than the Sun's centre and helped to compress the hydrogen fuel to more than 100 billion times that of Earth's atmosphere.
- Under the pressure of these forces, the capsule started imploding on itself and leading to the fusion of hydrogen atoms and the release of energy.

What can be the Future Prospect?

- Attempts to master the fusion process have been going on at least since the 1950s, but it is incredibly difficult and is still at an experimental stage.
- The nuclear energy currently in use across the world comes from the **fission process.**
- Besides greater energy yield, fusion is also a carbon-free source of energy, and has negligible radiation risks.
- Though the achievement is significant, it **does little to bring the goal of producing electricity from fusion reactions** any closer to reality.
- By all estimates, use of the fusion process for generating electricity at a commercial scale is still two to three decades away.
- The technology used in the US experiment might take even longer to get deployed.

What is Fusion?

- Fusion is a different, but more powerful, way of harnessing the immense energy trapped in the nucleus of an atom.
- In fusion, nuclei of two lighter elements are made to fuse together to form the nucleus of a heavier atom.
- A large amount of energy is released in both these processes, but substantially more in fusion than fission.
 - This is the process that makes the Sun and all other stars shine and radiate energy.



What are Advantages of Nuclear Fusion?

- Abundant Energy:
 - Fusing atoms together in a controlled way releases nearly four million times more energy than a chemical reaction such as the burning of coal, oil or gas and four times as much as nuclear fission reactions (at equal mass).
 - Fusion has the **potential to provide the kind of baseload energy** needed to provide electricity to the cities and the industries.
- Sustainability:
 - Fusion fuels are widely available and nearly inexhaustible. Deuterium can be distilled

from all forms of water, while tritium will be produced during the fusion reaction as fusion neutrons interact with lithium.

No CO2:

- Fusion doesn't emit **harmful toxins like carbon dioxide or other greenhouse gases** into the atmosphere. Its major by-product is helium: an inert, non-toxic gas.
- No long-lived Radioactive Waste:
 - Nuclear fusion reactors produce no high activity, long-lived nuclear waste.

Limited Risk of Proliferation:

- Fusion doesn't employ fissile materials like uranium and plutonium (Radioactive tritium is neither a fissile nor a fissionable material).
- No Risk of Meltdown:
 - It is difficult enough to reach and maintain the precise conditions necessary for fusion—if any disturbance occurs, the plasma cools within seconds and the reaction stops.

What is the difference between Nuclear Fusion & Nuclear Fission?

	Fission	Fusion
<u>Definition</u>	Fission is the splitting of a large atom into two or more smaller ones.	Fusion is the fusing of two or more lighter atoms into a larger one.
Occurrence	Fission reaction does not normally occur in nature.	Fusion occurs in stars, such as the sun. Extremely high energy is
Energy Requirement	Takes little energy to split two atoms in a fission reaction.	Extremely high energy is required to bring two or more protons.
<u>Energy</u> <u>Released</u>	The energy released by fission is a million times greater than that released in chemical reactions, but lower than the energy released by nuclear fusion.	The Energy released by fusion is three to four times greater than the energy released by fission.
Energy production	Fission is used in nuclear power plants.	Fusion is an experimental technology for producing power.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Prelims

Q. The function of heavy water in a nuclear reactor is to (2011)

- (a) Slow down the speed of neutrons
- (b) Increase the speed of neutrons

- (c) Cool down the reactor
- (d) Stop the nuclear reaction

Ans: (a)

- Heavy water (D2O), also called Deuterium Oxide, is water composed of Deuterium (Hydrogen isotope) with a mass double that of regular water (H₂O).
- Heavy water occurs naturally, although it is much less common than regular water.
- It is commonly used in nuclear reactors as a neutron moderator, i.e., to slow down the speed of neutrons.
- Therefore, option (a) is the correct answer.

Mains

Q. With growing energy needs should India keep on expanding its nuclear energy programme? Discuss the facts and fears associated with nuclear energy. **(2018)**

The Vision

What is Nuclear Fusion? - In Depth | Drishti IAS English

Source: IE

Manual Scavenging

For Prelims: Initiatives to tackle Menace of Manual Scavenging, Swachh Bharat Mission

For Mains: Menace of Manual Scavenging, Issues related to SC, STs

Why in News?

Recently, the Ministry of Social Justice and Empowerment (MoSJ&E) told <u>Lok Sabha</u> that no person had died from Manual Scavenging in the last three years (2019 to 2022).

A total of 233 people had died "due to accidents while undertaking hazardous cleaning of sewer and septic tanks' in this time period.

What is Manual Scavenging?

- Manual scavenging is defined as "the removal of human excrement from public streets and dry latrines, cleaning septic tanks, gutters and sewers".
- India banned the practice under the <u>Prohibition of Employment as Manual Scavengers and their</u> <u>Rehabilitation Act, 2013 (PEMSR).</u>
 - The Act bans the use of any individual manually cleaning, carrying, disposing of or otherwise handling in any manner human excreta till its disposal.
 - The Act recognizes manual scavenging as a "dehumanizing practice".

What are the Reasons for the Prevalence of Manual Scavenging?

Indifferent Attitude:

- A number of independent surveys have talked about the continued reluctance on
- the part of state governments to admit that the practice prevails under their watch.
- Issues due to Outsourcing:
 - Many times, local bodies outsource sewer cleaning tasks to private contractors. However, many of them fly-by-night operators, do not maintain proper rolls of sanitation workers.
 - In case after case of workers being asphyxiated to death, these contractors have denied any association with the deceased.
- Social Issue:
 - The practice is driven by caste, class and income divides.
 - It is linked to India's caste system where so-called lower castes are expected to perform this job.
 - In 1993, **India banned the employment of people as manual scavengers** (The Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act, 1993), however, the stigma and discrimination associated with it still linger on.
 - This makes it difficult for liberated manual scavengers to secure alternative livelihoods.

What are the Steps taken to tackle the Menace of Manual Scavenging?

- <u>The Prohibition of Employment as Manual Scavengers and their Rehabilitation (Amendment) Bill.</u> 2020:
 - It proposes to completely mechanise sewer cleaning, introduce ways for 'on-site' protection and provide compensation to manual scavengers in case of sewer deaths.
 - It will be an amendment to The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013.
 - It is still awaiting cabinet approval.
- The Building and Maintenance of Insanitary Latrines Act of 2013:
 - It outlaws' construction or maintenance of unsanitary toilets, and the hiring of anybody for their manual scavenging, as well as of hazardous cleaning of sewers and septic tanks.
 - It also provides a constitutional responsibility to provide alternative jobs and other assistance to manual scavenging communities, as reparation for historical injustice and indignity.
- Scheduled Castes & Scheduled Tribes (Prevention Of Atrocities) Act, 1989:
 - In 1989, the Prevention of <u>Atrocities Act</u> became an integrated guard for sanitation workers, more than **90% people employed as manual scavengers belonged to the Scheduled Caste**. This became an important landmark to free manual scavengers from designated traditional occupations.
- Safaimitra Suraksha Challenge:
 - It was launched by the Ministry of Housing and Urban Affairs on World Toilet Day (19th November) in 2020.
 - The Government launched this "challenge" for all states to make sewer-cleaning mechanised by April 2021 — if any human needs to enter a sewer line in case of unavoidable emergency, proper gear and oxygen tanks, etc., are to be provided.
- Swachhta Abhiyan App:
 - It has been developed to identify and geotag the data of insanitary latrines and manual scavengers so that the insanitary latrines can be replaced with sanitary latrines and rehabilitate all the manual scavengers to provide dignity of life to them.
- National Action Plan for Mechanised Sanitation Ecosystem (NAMASTE):
 - The NAMASTE scheme is being undertaken jointly by the Ministry of Housing and Urban Affairs and the MoSJ&E and aims to eradicate unsafe sewer and septic tank cleaning practices.
- SC Judgment: In 2014, a <u>Supreme Court</u> order made it mandatory for the government to identify all those who died in sewage work since 1993 and provide Rs. 10 lakh each as compensation to their families.

Way Forward

- With <u>Swachh Bharat Mission</u> identified as a top priority area by the <u>15th Finance Commission</u> and funds available for smart cities and urban development providing for a strong case to address the problem of manual scavenging.
- To address the social sanction behind manual scavenging, it is required first to acknowledge and then understand how and why manual scavenging continues to be embedded in the caste system.
- The state and society need to take active interest in the issue and look into all possible options to accurately assess and subsequently eradicate this practice.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

- Q. 'Rashtriya Garima Abhiyaan' is a national campaign to (2016)
- (a) rehabilitate the homeless and destitute persons and provide them with suitable sources of livelihood
- (b) release the sex workers from their practice and provide them with alternative sources of livelihood

(c) eradicate the practice of manual scavenging and rehabilitate the manual scavengers

(d) release the bonded labourers from their bondage and rehabilitate them

Ans: (c)

Exp:

- **Rashtriya Garima Abhiyaan** is a national campaign for dignity and eradication of manual scavenging launched by Jan Sahas in 2001.
- Therefore, option (c) is the correct answer.

Source: TH

GLAAS Report 2022

For Prelims: GLAAS 2022 Report, World Health Organization, climate change, WASH Strategy

For Mains: Access to water and sanitation and related issues

Why in News?

Recently, the Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) report was released by the <u>World Health Organization (WHO)</u> and UN-Water.

What is UN-Water?

- UN-Water coordinates the United Nations' work on water and sanitation. UN-Water is a 'coordination mechanism'.
- It is composed of United Nations entities (Members) and international organizations (Partners) working on water and sanitation issues.
- UN-Water's role is to ensure that Members and Partners' deliver as one' in response to water-related challenges.

What is the GLAAS Report?

- The UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) 2022 report compiles new data on drinking-Water, Sanitation and Hygiene (WASH) from 121 countries and territories and 23 External Support Agencies (ESAs).
- It serves as a global reference to inform commitments, priority-setting and actions during the second half of the 2030 Agenda for Sustainable Development and for the 2023 Conference for the Midterm Comprehensive Review of Implementation of the United Nations Decade for Action on Water and Sanitation (2018-2028) (UN 2023 Water Conference).
- The report also highlights opportunities to accelerate progress in key WASH areas that positively affect the quality and sustainability of WASH services and delivery, pandemic preparedness and resilience to climate change.

What are the Highlights of the Report?

- Human Resource:
 - Less than one-third of countries reported maintaining enough human resources to manage essential Water, Sanitation and Hygiene (WASH) tasks.
- National Coverage Targets:
 - 45% of countries are on track to meet their drinking-water coverage targets, but only 25% are meeting their sanitation targets.
 - More acceleration is needed to achieve national targets.
- Finance:
 - While WASH budgets in some countries have increased, a significant portion more than 75% of them — reported having inadequate resources to carry out their WASH plans and objectives.
- Climate Resilience of WASH Systems:
 - Most WASH policies and plans do not consider climate change threats to WASH services, nor do they take the climate resilience of WASH technology and management systems into account
 - The increasing frequency and intensity of extreme weather events caused by climate change continue to hamper the delivery of safe WASH services, thus affecting the health of users.
- External Support:
 - Aid for water and sanitation decreased by 5.6% between 2017 and 2020, and the geographical targeting of the aid shifted.
 - In sub-Saharan Africa, the proportion of WASH aid dropped from 32% to 23%, while in Central and Southern Asia, it increased from 12% to 20%, and in Eastern and South-Eastern Asia, it increased from 11% to 20%.

What is WASH?

- WASH is an acronym that stands for the interrelated areas of Water, Sanitation and Hygiene.
- The <u>World Health Organisation (WHO) WASH Strategy</u> has been developed in response to Member State Resolution (WHA 64.4) and the 2030 Agenda for <u>Sustainable Development</u> (SDG 3: Good Health and Well Being, SDG 6: Clean Water And Sanitation).
- It is a component of WHO's 13th General Programme of Work 2019-2023 which aims to contribute to the health of three billion through multisectoral actions like better emergency

preparedness and response; and one billion with Universal Health Coverage (UHC).

 It also takes on board the need for progressive realization of the human rights to safe drinking-water and sanitation, adopted by the <u>UN General Assembly</u> in July 2010.

Way Forward

- Leaving no one Behind:
 - Governments must target underserved populations and settings such as people living in poverty or in remote or hard-to-reach areas – to ensure they also have access to safe, sustainable WASH services.
 - $\circ\,$ Local participation is a way to ensure no one is left behind.
 - Strengthening community participation is fundamental to adapt and sustain SDG 6 solutions to local community contexts.
- Gender:
 - Increased inclusion, financial support and monitoring are needed to ensure women are considered in WASH decisions and services Gender and WASH are connected in many ways – from menstrual health and hygiene to local participation and women working in WASH.
- Increasing Investment:
 - Governments and development partners need to strengthen WASH systems and dramatically increase investment to extend access to safely managed drinking water and sanitation services to all by 2030, beginning with the most vulnerable.

Source: DTE

Beypore Uru

Why in News?

Recently, the District Tourism Promotion Council, Kozhikode has **applied for a** <u>Geographical Indication</u> (GI) **tag for the famous Beypore Uru (boat).**

• The Beypore Urus are a symbol of Kerala's trade relations and friendship with the <u>Gulf</u> <u>countries</u>.

What is Beypore Uru?



- About:
 - It is a wooden dhow (ship / sailing boat / sailing vessel) handcrafted by skilled artisans and carpenters in Beypore, Kerala.
 - The Beypore Urus are purely made of premium wood, without using any modern techniques.
 - The wood used to build the Uru is still sawed the traditional way which requires immense expertise.
 - It takes anywhere between 1-4 years to build each Uru and the entire process is done manually.
 - This traditional handicraft has been in existence for 2000 years.
- Communities Involved in Uru-making:
 - The prominent people associated with Uru-making are Odayis and Khalasis.
 - Odayis:
 - They manage the technical matters of ship building.
 - Their family name comes from Odam (a type of small ship previously used in interactions/trade between the Malabar coast and Lakshadweep).

Khalasis:

- They are also referred to as Mappila Khalasis as majority of them are Mappila Muslims.
- They are **world-famous for their skill and expertise** in launching the completed Urus into the water by using only traditional methods.
- The Khalasis are considered as pioneers in the ship-building industry and the Arab traders were especially enamoured of them, and were among the first major patrons of these vessels.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Q. Which of the following has/have been accorded 'Geographical Indication' status? (2015)

- 1. Banaras Brocades and Sarees
- 2. Rajasthani Daal-Bati-Churma
- 3. Tirupathi Laddu

Select the correct answer using the code given below:

1 only

2 and 3 only

Ans: (c)
1, 2 and 3
1 and 3 only

Exp:

- A Geographical Indication (GI) is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin.
- Darjeeling tea was the first product in India to get a GI tag.
- Banaras Brocades and Sarees and Tirupathi Laddu have got GI tag while Rajasthan's Daal-Baati-Churma does not. Hence, 1 and 3 are correct. Therefore, option (c) is the correct answer.

Q. India enacted the Geographical Indications of Goods (Registration and Protection) Act, 1999 in order to comply with the obligations to **(2018)**

-				
Ans: (d)				
WTO				
UNCTAD				
IMF				
ILO				

Exp:

- Geographical indications (GIs) are a type of intellectual property (IP). The World Trade Organisation (WTO) recognises intellectual property rights under TRIPS (TradeRelated Aspects of Intellectual Property Rights) Agreement.
- Under Article 22(1) of the TRIPS Agreement, the GIs are defined as "indications which identify a
 good as originating in the territory of a member, or a region or locality in that territory, where a
 given quality, reputation or other characteristic of the good is essentially attributable to its
 geographic origin".
- Therefore, option (d) is the correct answer.



Why in News?

Kolkata will witness an event that will celebrate **150 years of its iconic tram and renew hope** that this **non-polluting mode of transport** does not become entirely extinct in February, 2023.



What is a Tramjatra Event?

- History:
 - Tramjatra (tram's journey) is a **moving tram carnival that was started back in 1996** jointly by enthusiasts from Melbourne and Kolkata.
 - At the time, Kolkata, the only Indian city where the tram still runs, was home to about two dozen routes.
 - Today the number of routes that remain operational has shrunk to just two.
 - The 2023 event, therefore, will be more about impressing the West Bengal government to preserve the tram.
- About:
 - Tramjatra is **essentially an international collaboration of trammies, artists,** environmentalists, and tram-loving communities.
- Theme for 2022: Heritage, Clean Air and Green Mobility
- Objective:
 - It seeks to educate people, particularly the younger generation, about <u>climate</u> <u>change, air pollution</u>, and <u>sustainable development</u> objectives with a focus on green mobility and Kolkata's tram legacy.

Source: TH

Rabi Crops

Why in News?

Rabi crops are at risk due to an abnormal lack of <u>western disturbances</u> over northwest and central India.

• The **region doesn't have enough rainfall and moisture**, which is crucial for growing wheat

during the winter.

What are the Other Contributing Factors?

- Incessant rainfall in the region in the first two weeks of October, 2022 due to several active weather systems caused this paradox.
- A possible impact of the continuing La Niña phenomenon in the equatorial Pacific Ocean and a warming Arctic region might also have contributed.
 - One of the weather systems that brought extreme rainfall at the beginning of October was a western disturbance — extratropical storm systems that bring winter rainfall to northwest and some parts of central India from the Arctic, Mediterranean and West Asian regions.
- A lack of western disturbances in November, 2022, and the complete absence of them in December, 2022, is primarily responsible for the lack of rain since early October, 2022.

What are Rabi Crops?

- These crops are sown around the Retreating Monsoon and Northeast monsoon season, which begins in October and are called rabi or winter crops.
- The harvest for these crops happens typically during April and May, during the summer season.
- These crops are not much affected by the rainfall.
- Major Rabi crops are wheat, gram, peas, barley etc.
- A warm climate is required for seed germination and cold climate for the growth of crops.

What are the Other Types of Crops grown in India?

- Kharif Crops:
 - Crops that are **sown during the southwest monsoon season** are called kharif or **monsoon crops.**
 - These crops are **sown at** the beginning of the season around **end May to early June** and are harvested post the monsoon rains beginning October.

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- These crops depend on the rainfall patterns.
- Rice, maize, pulses such as urad, moong dal and millets are among the key kharif crops.
- It requires a lot of water and hot weather to grow.
- Zaid Crops:
 - Sown and harvested: March-July (between Rabi and Kharif)
 - Important zaid crops include seasonal fruits, vegetables, fodder crops etc.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Q. With reference to the cultivation of Kharif crops in India in the last five years, consider the following statements: (2019)

- 1. Area under rice cultivation is the highest.
- 2. Area under the cultivation of jowar is more than that of oilseeds.
- 3. Area of cotton cultivation is more than that of sugarcane.
- 4. Area under sugarcane cultivation has steadily decreased.

Which of the statements given above are correct?

(a) 1 and 3 only
(b) 2, 3 and 4 only
(c) 2 and 4 only

(d) 1. 2. 3 and 4

(4) 1, 2, 5 4

Ans: (a)

Q. Consider the following crops: (2013)

- 1. Cotton
- 2. Groundnut
- 3. Rice
- 4. Wheat

Which of these are Kharif crops?

(a) 1 and 4

(b) 2 and 3 only

(c) 1, 2 and 3

(d) 2, 3 and 4

Ans: (c)

Source: DTE

System for Pension Administration Raksha

Why in News?

Recently, the Ministry of Defense has urged the stakeholders of System for Pension Administration Raksha (SPARSH) to make it **more user friendly.**

 One Rank One Pension (OROP) scheme also provides the payment of the same pension to military officers for the same rank for the same length of service, irrespective of the date of retirement.

What is SPARSH?

- About:
 - It is an **integrated system for automation of sanction and disbursement** of defence pension.

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- This web-based system processes pension claims and credits pension directly into the bank accounts of defence pensioners without relying on any external intermediary.
- A Pensioner Portal is available for pensioners to view their pension related information, access services and register complaints, if any.
- Objectives:
 - SPARSH envisages **the establishment of Service Centres to provide last-mile connectivity to pensioners** who may be unable to directly access the SPARSH portal.
 - SPARSH has been designed keeping defence pensioners at the centre, who will be given a completely transparent view of their pension account, through an online portal.
 - It aims address the current challenges in the pension sanctioning and disbursement process such as
 - Decentralised solution existing in silos

- Manual intervention in processing
- Lack of Centralised information for addressing pensioner queries etc.
- Benefits:
 - It provides the option to the pensioner to use enabled services for quicker processing of his requests and signing of declarations, making his experience a truly paperless and hassle free one.
 - It captures and maintains a complete history of events and entitlements of the pensioner
 right from the date of commencement of pension to the date of cessation of pension due to the last eligible beneficiary.

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Source: PIB

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