



Kuril Island Dispute

For Prelims: Diplomatic Bluebook, Kuril Island Dispute, Treaties and Agreements Related to Kuril Islands

For Mains: World War II, International Treaties & Agreements, Kuril Island Dispute

Why in News?

Recently, Japan **described four islands** whose ownership it disputes with Russia as **illegally occupied** in the latest version of a **diplomatic Bluebook**.

- The use of stronger language underscored the chilled relations between the two sides amid the [Russian invasion of Ukraine](#).
- Russia refers to these islands as the [Kuril Islands](#), whereas **Japan calls them Northern territories**.
- Japan is also having a similar dispute regarding Northern territories with South Korea. South Korea refers to as Dokdo islands.

What is Diplomatic Bluebook?

- The Diplomatic Bluebook of Japan is an **annual report on Japan's foreign policy** and international diplomacy published by the Ministry of Foreign Affairs in Japan.
- It has been published every year since its **first issue in September 1957**.

What is the Geographic Location and Significance of the Kuril Islands?

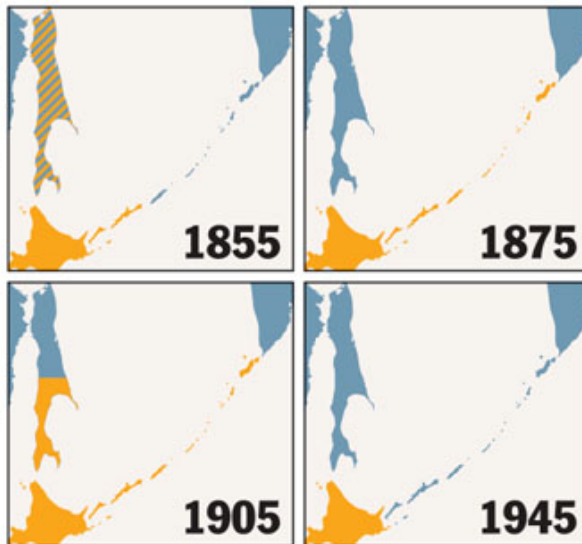
- **Location:**
 - The Kuril Islands are stretched from the **Japanese island of Hokkaido** to the southern tip of **Russia's Kamchatka Peninsula** separating the **Okhotsk Sea from the North Pacific Ocean**.
 - The chain is part of the belt of **geologic instability circling the Pacific ([Ring of Fire](#))** and contains at least 100 volcanoes, of which **35 are still active, and many hot springs**.
- **Significance:**
 - **Natural resources:** The islands are **surrounded by rich fishing grounds** and are thought to have offshore reserves of oil and gas.
 - **Strategic Importance:** Russia has **deployed missile systems in the region**. Russia also plans a submarine project and intends to prevent any American military use of the islands.
 - **Cultural Importance:** The **Japanese** people, especially conservatives in Hokkaido, are **emotionally attached to the islands**.

RUSSIA-JAPAN TALKS ON DISPUTED KURIL ISLANDS



HISTORY OF KURIL DISPUTE

- **1855: Treaty of Shimoda** gives southern Kurils to Japan and rest of island chain to Russia.
- **1875: Treaty of St Petersburg** cedes all Kurils to Japan in exchange for Russian jurisdiction over Sakhalin
- **1905:** After Russia's defeat in *Russo-Japanese War*, Japan gains control of southern Sakhalin
- **1945:** Soviet Union occupies entire Kuril chain and southern Sakhalin after declaring war on Japan during final days of *World War II*
- **1951:** Japan renounces claim to Kurils in *Treaty of San Francisco*, signed between Japan and Allied powers.



- **1956: Soviet-Japanese Joint Declaration** restores diplomatic ties between two countries.

What is the History of the Kuril Islands Dispute?

- **Background:**
 - The Kuril Islands dispute between **Japan and Russia** is over the **sovereignty of South Kuril Islands**.
 - The South Kuril Islands comprise **Etorofu island, Kunashiri island, Shikotan island and the Habomai island**.
 - These islands are **claimed by Japan but occupied by Russia** as the successor state of the Soviet Union.
- **Treaty of Shimoda (1855):**
 - In **1855**, Japan and Russia concluded the **Treaty of Shimoda**, which gave control of the four southernmost islands to Japan and the remainder of the chain to Russia.
- **Treaty of Saint Petersburg (1875):**
 - In the **Treaty of Saint Petersburg**, signed between the two countries in **1875**, **Russia**

ceded possession of the Kurils to Japan in exchange for uncontested control of Sakhalin Island.

- However, these islands were again seized by the Soviet Union at the end of [World War II](#).
- **Yalta Agreement (1945):**
 - In **1945**, as part of the [Yalta agreements](#) (**formalized in the 1951 Treaty of Peace with Japan**), the islands were ceded to the Soviet Union, and the Japanese population was repatriated and replaced by the Soviets.
- **San Francisco Peace Treaty (1951):**
 - The **San Francisco Peace Treaty** signed between the Allies and Japan in 1951, states that Japan must give up “all right, title and claim to the Kuril Islands”, **but it also does not recognize the Soviet Union’s sovereignty over them.**
 - In World War II, the main combatants were:
 - **Axis powers** (Germany, Italy, and Japan)
 - **Allies** (France, Great Britain, the United States, the Soviet Union, and, to a lesser extent, China).
- **Japan-Soviet Joint Declaration (1956):**
 - The dispute over the islands has **prevented the conclusion of a peace treaty to end World War II.**
 - In 1956, diplomatic ties were restored between Japan and Russia by **Japan-Soviet Joint Declaration.**
 - During that time, Russia offered to give away the two islands closest to Japan. But the offer was rejected by Japan as the two islands constituted **only 7% of the land** in question.

What is the Current Scenario?

- Despite a series of agreements, the dispute continues, and **Japan still claims historical rights to the southernmost islands** and has tried repeatedly to persuade the Soviet Union and, from 1991, Russia to return those islands to Japanese sovereignty.
- In **2018**, the Russian President and the Japanese Prime Minister (PM) met on the sidelines of the [East Asia Summit](#) and decided to end the territorial dispute by the Japanese PM agreeing to negotiate based on the 1956 declaration.
 - This implicitly showed that Japan has given up the two islands to maintain peace with Russia.
- However, Russia indicated that the joint declaration signed by Japan and the Soviet Union in 1956 **neither mentions a basis for returning Habomai and Shikotan nor clarifies which country has sovereignty over the islands.**
- Further, in **2019**, the Japanese PM made it clear that the country is **not in the favour of withdrawing control over the Islands.**
- Japan also believes that the islands are an inherent part of the nation’s territory.
- Therefore, **Japan mentioned that it aims to sign the peace treaty after the territorial issue is resolved.**

[Source: TH](#)

Phone Tapping in India

For Prelims: Central Bureau of Investigation (CBI), Enforcement Directorate, Narcotics Control Bureau, Central Board of Direct Taxes, Directorate of Revenue Intelligence, National Investigation Agency

For Mains: Phone Tapping in India and related issues

Why in News?

Recently, a political leader claimed that the Centre is protecting an **Indian Police Service** officer who is facing a [First Information Report \(FIR\)](#) in Mumbai and is being probed for allegedly tapping the phones.

What is Phone Tapping and how are Phones Tapped in India?

- Phone tapping or cell phone tracking/tracing is an **activity where a user's phone calls, and other activities are tracked** using different software.
 - This procedure is majorly carried out without the targeted person being notified of any such activity.
- It can be done by authorities making a **request to the service provider**, which is bound by law, to record the conversations on the given number and provide these in real time through a connected computer.
- However, [Article 21](#) of the Indian Constitution says that **“No person shall be deprived of his life or personal liberty except according to procedure established by law.”**
 - The expression ‘personal liberty’ includes [‘right to privacy’](#). A citizen has a right to safeguard his personal privacy and his family, education, marriage, motherhood, childbearing, and procreation, among other matters.

Who can Tap Phones?

- **State Level:**
 - In the states, police have the power to tap phones.
- **Central Level:**
 - Intelligence Bureau, [Central Bureau of Investigation \(CBI\)](#), [Enforcement Directorate](#), [Narcotics Control Bureau](#), [Central Board of Direct Taxes](#), Directorate of Revenue Intelligence, [National Investigation Agency](#), Research and Analysis Wing (R&AW), Directorate of Signal Intelligence, [Delhi Police Commissioner](#).

What are the Laws that govern Phone Tapping in India?

- **The Indian Telegraph Act, 1885:**
 - According to **Section 5(2) of the Act** on the occurrence of any public emergency, or in the interest of public safety, phone tapping can be done by the Centre or states.
 - The order can be issued **if they are satisfied it is necessary in the interest of public safety, “sovereignty and integrity of India, the security of the State, friendly relations with foreign States or public order or for preventing incitement to the commission of an offence”**.
- **Exception for Press:**
 - **Press messages intended to be published in India of correspondents accredited to the Central Government or a State Government** shall not be intercepted or detained, unless their transmission has been prohibited under this sub-section.
 - The competent authority **must record reasons for tapping in writing**.

Who Authorizes Phone Tapping?

- Phone tapping is authorized by **Rule 419A of the Indian Telegraph (Amendment) Rules, 2007**.
 - **In the case of the Central Government:** The order can be **issued by an order made by the Secretary to the Government of India in the Ministry of Home Affairs**.
 - **In the case of a State Government:** By the Secretary to the State Government in-charge of the Home Department.
- **In Emergency Situation:**
 - In such a situation, an **order may be issued by an officer**, not below the rank of a **Joint Secretary of India**, who has been **authorized by the Union Home Secretary, or the State Home Secretary**.

- In **remote areas or for operational reasons**, if it is **not feasible to get prior directions**, a call can be intercepted with the prior approval of the head or the second senior-most officer of the authorized law enforcement agency at the central level, and by authorized officers, not below the rank of Inspector General of Police, at the state level.
- The **order must be communicated within three days** to the competent authority, who must **approve or disapprove it within seven working days**.
 - If the confirmation from the competent authority is not received within the stipulated seven days, such interception shall cease.
- It can be noted here that in 2021, the Central Government notified the [Indian Telegraph Right of Way \(Amendment\) Rules, 2021](#).

What are the Checks against Misuse?

- **Last Resort:**
 - The law is clear that interception **must be ordered only if there is no other way of getting the information**.
- **Renewal of Interception:**
 - The directions for interception remain in force, **unless revoked earlier, for a period not exceeding 60 days**.
 - They may be **renewed, but not beyond a total of 180 days**.
- **Reasons Needed:**
 - Any order **issued by the competent authority** must contain reasons, and a copy is to be forwarded to a review committee within seven working days.
 - At the Centre, the committee is **headed by the Cabinet Secretary** with the Law and Telecom Secretaries as members.
 - In states, it is **headed by the Chief Secretary** with the Law and Home Secretaries as members.
 - The committee is expected to meet at least once in two months to review all interception requests.
- **Destruction of Records:**
 - Under the rules, **records pertaining to such directions shall be destroyed every six months** unless these are, or are likely to be, required for functional requirements.
 - Service providers too are required to destroy records pertaining to directions for interception within two months of discontinuance of the interception.

Way Forward

- The relation between the **'right to privacy' and 'personal liberty'** was distinctly observed by the court of law, along with the necessities to tap communications of the individuals.
- The need of safeguarding the rights of the individuals and maintaining privacy is paramount but when it comes to public emergencies or safety in the public interest **the procedure established by the court is to be followed** while breaching the privacy of an individual and keeping it secretive because of the sensitive nature of the information gathered.
- The court has **established a fair and just procedure to keep the checks** and balances so that no misuse of power takes place.

[Source: IE](#)

Wild Life (Protection) Amendment Bill, 2021

For Prelims: Wild Life (Protection) Act, 1972, CITES, UNEP, IUCN

For Mains: Wild Life (Protection) Amendment Bill, 2021

Why in News?

Recently, the **Parliamentary Standing Committee on Science and Technology, Environment, Forests and Climate Change** submitted its report on the proposed the **Wild Life (Protection) Amendment Bill, 2021**.

- The standing committee has found that **some species were excluded from various schedules of wildlife and plants** that have been proposed by the **Environment Ministry** and has recommended a revised listing of schedules to include these species.

What is Wild Life (Protection) Act,1972?

- **Wild Life (Protection) Act, 1972** provides a legal framework for the protection of various species of wild animals and plants, the management of their habitats, and the regulation and control of trade in wild animals, plants and products made from them.
- The Act also lists **schedules of plants and animals** that are afforded various degrees of protection and monitoring by the government.
- The Act has been amended several times, with the **last amendment having been made in 2006**.

What are Key features of the Bill?

- **Implementing Provision of CITES:** The Bill seeks to **implement provisions of [Convention on International Trade in Endangered Species of Wild Fauna and Flora \(CITES\)](#)**. The Bill provides for the central government to designate a:
 - **Management Authority**, which grants export or import permits for trade of specimens.
 - Every person engaging in trade of a scheduled specimen must report the details of the transaction to the Management Authority.
 - As per CITES, the Management Authority may use an identification mark for a specimen.
 - The Bill prohibits any person from modifying or removing the identification mark of the specimen.
 - Additionally, every person possessing live specimens of scheduled animals must obtain a registration certificate from the Management Authority.
 - **Scientific Authority**, which gives advice on aspects related to impact on the survival of the specimens being traded.
- **Rationalizing Schedules:** Currently, the Act has six schedules for specially protected plants (one), specially protected animals (four), and vermin species (one). The Bill **reduces the total number of schedules to four** by:
 - **Schedule I** for species that will enjoy the highest level of protection,
 - **Schedule II** for species that will be subject to a lesser degree of protection and
 - **Schedule III** that covers plants.
 - It **removes the schedule for vermin species**. Vermin refers to small animals that carry diseases and destroy food.
 - It **inserts a new schedule for specimens listed in the Appendices under CITES (scheduled specimens)**.
- **Invasive Alien Species:** The Bills empowers the central government to **regulate or prohibit the import, trade, possession or proliferation of invasive alien species**.
 - Invasive alien species refers to plant or animal species which are **not native to India and whose introduction may adversely impact wild life or its habitat**.
 - The central government may authorize an officer to seize and dispose the invasive species.
- **Control of Sanctuaries:** The Act entrusts the **Chief Wild Life Warden** to control, manage and maintain all sanctuaries in a state.
 - The Chief Wild Life Warden is **appointed by the state government**.
 - The Bill specifies that the actions of the **Chief Warden must be in accordance with the management plans for the sanctuary**.

- For sanctuaries falling under special areas, the management plan must be prepared after due consultation with the Gram Sabha concerned.
- Special areas include a Scheduled Area or areas where the [Scheduled Tribes and Other Traditional Forest Dwellers \(Recognition of Forest Rights\) Act, 2006](#) is applicable.
- Scheduled Areas are economically backward areas with a predominantly tribal population, notified under the [Fifth Schedule to the Constitution](#).
- **Conservation Reserves:** Under the Act, state governments may declare areas adjacent to national parks and sanctuaries as a **conservation reserve**, for protecting flora and fauna, and their habitat.
 - The Bill empowers the central government to also **notify a conservation reserve**.
- **Surrender of Captive Animals:** The Bill provides for any person to voluntarily surrender any captive animals or animal products to the **Chief Wild Life Warden**.
 - No compensation will be paid to the person for surrendering such items.
 - The surrendered items become property of the state government.
- **Penalties:** The Act prescribes imprisonment terms and fines for violating the provisions of the Act. The Bill increases these fines.

Type of Violation	1972 Act	2021 Bill
General violation	Up to Rs 25,000	Up to Rs 1,00,000
Specially protected animals	At least Rs 10,000	At least Rs 25,000

[Source: IE](#)

Western Disturbances

For Prelims: Western Disturbances, Caspian Sea, Mediterranean Sea, India Meteorological Department, Flash Floods, landslides, Cold Wave

For Mains: Physical Geography, Western Disturbances and its Unusual Behavior

Why in News?

Variations in the intensity and locations of the [Western Disturbances](#) have brought heavy rainfall to Delhi during some months and kept the city dry and in the grip of a heat wave at other times.



WESTERN DISTURBANCE

Extra-tropical cyclones that develop in the Mediterranean sea

They gradually travel across the middle-east from Iran, Afghanistan and Pakistan to enter the Indian sub-continent

Usually peak during winter months of January and February, with minimal effects during the monsoon months in India

What are Western Disturbances?

- Western disturbances are **storms that originate in the Caspian or Mediterranean Sea, and bring non-monsoonal rainfall to northwest India**, according to the [India Meteorological Department \(IMD\)](#).
- They are labelled as an **extra-tropical storm** originating in the Mediterranean, is an area of low pressure that brings sudden showers, snow and fog in northwest India.
- The meaning of WD lies in its name.
 - The disturbance **travels from the “western” to the eastern direction**.
 - These travel eastwards on high-altitude [westerly jet streams](#) - massive ribbons of fast winds traversing the earth from west to east.
 - Disturbance means an **area of “disturbed” or reduced air pressure**.
 - Equilibrium exists in nature due to which the air in a region tries to normalise its pressure.
- In the term **“extra-tropical storm”**, storm refers to low pressure. “Extra-tropical” means outside the tropics. **As the WD originates outside the tropical region, the word “extra-tropical” has been associated with them.**
- A WD is associated with rainfall, snowfall and fog in northern India. It arrives with rain and snow in Pakistan and northern India. The moisture which WDs carry with them **comes from the Mediterranean Sea and/or from the Atlantic Ocean.**
- WD brings winter and pre-monsoon rain and is important for the development of the [Rabi crop](#) in the Northern subcontinent.
- The WDs are not always the harbingers of good weather. Sometimes WDs can cause extreme weather events like floods, [flash floods](#), [landslides](#), dust storms, hail storms and [cold waves](#) killing people, destroying infrastructure and impacting livelihoods.

What is the Variation in Western Disturbances?

- In 2021, Delhi witnessed the **rainiest October in 65 years**, with the Safdarjung weather observatory recording 122.5 mm of rainfall against a normal of 28 mm, on account of western disturbances.
- Excess rainfall was also recorded in January and February this year. In contrast, there was no rainfall in November 2021 and March 2022, and the summer saw an unusually early start with heat waves setting in at the end of March 2022.
- Multiple western disturbances that brought cloud cover had also **kept the maximum temperature low in February 2022**, when the **lowest maximum temperature in 19 years** was recorded.
- Active western disturbances eluded northwest India in March 2022, and absence of cloud cover and rain allowed temperatures to remain high.

What is the Probable Cause of the Variation?

- The **frequency** of western disturbances has **increased**, but **not the precipitation** associated with them, partly due to a warming atmosphere ([Global Warming](#)).
- Western disturbances are low-pressure areas. If it is a feeble western disturbance, it will not have moisture to precipitate.
- For precipitation, you need moisture, and **by virtue of a warming atmosphere, there is less amount of moisture available to precipitate.**
- Simultaneously, **because of warming in the atmosphere, western disturbances are going higher in elevation.** In general, they move in subtropical westerly jet, now they are becoming lighter and moving higher, above 200 hectopascals.
- Variations will **have to be monitored over the next few years** to determine what climate change impact might be.

[Source: IE](#)

Genetically Modified Mosquitoes

For Prelims: Genetically Modified Mosquitoes, Dengue, Zika, Yellow Fever.

For Mains: Health, Diseases.

Why in News?

Recently, the US conducted an **open-air study of genetically engineered mosquitoes** which shows promising results.

- The aim of the study is **to reduce the population of wild Aedes aegypti mosquitoes** that are a **vector for viruses** such as chikungunya, [dengue](#), [zika](#) and [yellow fever](#).
- The mosquitoes had **already been field-tested in Brazil, Panama, the Cayman Islands, and Malaysia**, but no such study was conducted in the United States.

<u>Vector</u>	<u>Disease caused</u>	<u>Type of pathogen</u>	
Mosquito	<i>Aedes</i>	Chikungunya	Virus
		Dengue	Virus
		Lymphatic filariasis	Parasite
		Rift Valley fever	Virus
		Yellow Fever	Virus
		Zika	Virus
	<i>Anopheles</i>	Lymphatic filariasis	Parasite
		Malaria	Parasite
	<i>Culex</i>	Japanese encephalitis	Virus
		Lymphatic filariasis	Parasite
		West Nile fever	Virus

What are Genetically Modified Mosquitoes?

- GM mosquitoes are mass-produced in a laboratory to carry two types of genes:
 - A **self-limiting gene** that prevents female mosquito offspring from surviving to adulthood.
 - A **fluorescent marker gene** that glows under a special red light. This allows researchers to identify GM mosquitoes in the wild.
- GM mosquitoes produced in the laboratory lay eggs. These eggs carry the self-limiting and fluorescent marker genes.
- GM mosquito eggs that carry the self-limiting gene are released into an area. Once they have hatched and develop through to the adult stage, **they are available to mate with wild females**. The genes are passed on to offspring.
 - The male mosquitoes have a protein (the tTAV-OX5034 protein) that prevents female offspring from surviving when male OX5034 mosquitoes mate with wild female mosquitoes.
- The **female offspring die before they become adults**. The expected result is that the number of *Aedes aegypti* mosquitoes in the area decreases.

What are the Related Concerns?

- Genetically modifying insects to control their population to curb the spread of a disease is **not a novel idea**. Similar efforts began a decade ago, with scientists now attempting to engineer [ticks](#) to prevent diseases.
- The concerns **ranged from the modified mosquitoes harming people**, its impact on mosquito-eating species and other unintended consequences such as the emergence of a deadly virus.
- Experts also believe that **reducing the population of the virus-spreading mosquito is not enough** to curb a potential outbreak.

Zika Virus

- Zika virus is a **mosquito-borne flavivirus** that was first identified in Uganda in 1947 in monkeys.
- It was **later identified in humans in 1952** in Uganda and the United Republic of Tanzania. Outbreaks of Zika virus disease have been recorded in Africa, the Americas, Asia, and the Pacific.
- Zika virus disease is **caused by a virus transmitted primarily by Aedes mosquitoes** and can be passed from a pregnant woman to her foetus.
- Sexual transmission of Zika virus is also possible.
- There is **no vaccine or medicine for Zika**. Instead, the focus is on relieving symptoms and includes rest, rehydration and acetaminophen for fever and pain.

Dengue

- Dengue is **transmitted by several species of mosquito** within the genus Aedes.
- Symptoms include fever, headache, muscle, and joint pains, and a characteristic skin rash that is similar to measles.
- The **dengue vaccine CYD-TDV or Dengvaxia** has been approved in about 20 countries.

Chikungunya

- Chikungunya is caused by a **mosquito-borne virus**.
- It is transmitted by **Aedes aegypti and Aedes albopictus mosquitoes**.
- Its symptoms are characterized by abrupt fever and severe joint pain, often in hands and feet, and may include headache, muscle pain, joint swelling or rash.
- There is **no specific antiviral drug treatment** for chikungunya.
- There is **no commercial chikungunya vaccine**.

Yellow Fever

- It is an **acute viral haemorrhagic disease** transmitted by infected mosquitoes. The "yellow" in the name refers to the jaundice that affects some patients.
- Symptoms of yellow fever include fever, headache, jaundice, muscle pain, nausea, vomiting and fatigue.
- **Yellow fever vaccine which is known as 17D** and according to the [World Health Organization \(WHO\)](#) also, it is safe and affordable. However, there are reports of multisystem organ failure following vaccination.

UPSC Civil Services Examination, Previous Year Question

Q. Consider the following statements: (2017)

1. In tropical regions, Zika virus disease is transmitted by the same mosquito that transmits dengue.
2. Sexual transmission of Zika virus disease is possible.

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: (c)

[Source: DTE](#)

Jupiter's Moon Europa

For Prelims: Jupiter and its Moons, NASA

Why in News?

A team of researchers from Stanford University have found the possibility of **water on one of [Jupiter's moons Europa](#)**, a prime candidate for life in the solar system.

- Earlier, [NASA's\(National Aeronautics and Space Administration\) Dawn spacecraft](#), [dwarf planet Ceres](#) reportedly found **salty water underground**.
- **Earlier, Scientists also found signatures of water vapor in the atmosphere of [K2-18b](#)**.

What is Europa?

- Europa is **slightly smaller than Earth's moon** and its diameter is about one-quarter that of the Earth.
- Even though Europa has a **very thin oxygen atmosphere, it is considered one of the most promising places in the solar system** to find present-day environments that are suitable for life beyond the Earth.
- It is also believed that underneath **Europa's icy surface the amount of water is twice that on Earth**.
- Scientists believe **Europa's ice shell is 15-25 km thick and is floating on an ocean, which is estimated to be between 60-150 km deep**.
- Interestingly, while its diameter is less than the Earth's, **Europa probably contains twice the amount of the water in all of the Earth's oceans**.
- [NASA](#) is expected to launch its **Europa Clipper in 2024**.
 - The module will **orbit Jupiter and conduct multiple close flybys to Europa to gather data on the moon's atmosphere, surface and its interior**.

What are the Findings?

- Europa's surface is mostly solid water ice and **contains water beneath it**.
- The double ridges – the **formations which are most common on Europa's surface and are like those seen on Earth's Greenland ice sheet**.
- Double Ridges of the moon **are formed over shallow pockets of water**.

What are the Implications of the recent findings?

- The double ridges of Europa **increase the potential habitability of the moon**.
- The ice shell, which is potentially miles thick, has been a difficult prospect for scientists to sample. But according to the new evidence gathered by the Stanford team, **the ice shell is believed to be less of a barrier and more of a dynamic system**.
 - This means that the **ice shell does not behave like an inert block of ice, but rather undergoes a variety of geological and hydrological processes**.
 - There is a **possibility that life has a shot if there are pockets of water in the shell**.
- If the mechanism seen in Greenland is how these things happen on Europa, **it suggests there's water everywhere**.

What is Jupiter?

- Fifth in line from the Sun, Jupiter is, by far, the **largest planet in the solar system** – more than twice as massive as all the other planets combined.
 - Jupiter, Saturn, Uranus and Neptune are called **Jovian or Gas Giant Planets**. These have thick atmosphere, **mostly of helium and hydrogen**.
- Jupiter's iconic **Great Red Spot** is a giant storm bigger than Earth that has raged for hundreds of years.

- Jupiter **rotates once about every 10 hours** (a Jovian day), but takes about **12 Earth years** to complete **one orbit of the Sun** (a Jovian year).
- Jupiter has **more than 75 moons**.
 - The planet Jupiter's **four largest moons are called the Galilean satellites** after Italian astronomer Galileo Galilei, who first observed them in 1610.
 - These large moons, named **Io, Europa, Ganymede, and Callisto**, are each distinctive world.
- In 1979, the **Voyager mission** discovered Jupiter's faint **ring system**.
- **Nine spacecraft** have visited Jupiter. Seven flew by and two have orbited the gas giant. **Juno**, the most recent, arrived at Jupiter in 2016.

[Source: IE](#)

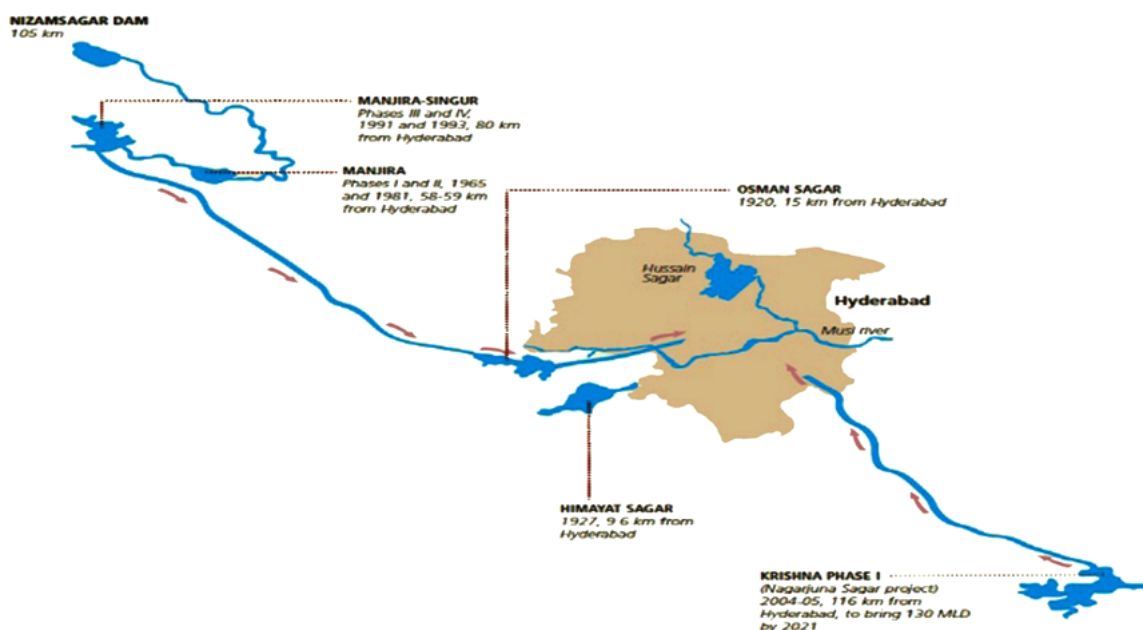
GO 111

For Prelims: Osman Sagar and Himayat Sagar reservoirs

For Mains: GO 111, Conservation

Why in News?

Environmentalists and activists are criticizing the Telangana government for withdrawing an over 25-year-old government order (GO) 111 protecting the historic Osman Sagar and Himayat Sagar reservoirs in Hyderabad, which they say will destroy the fragile surrounding ecosystem.



What was the government order that protected the two lakes?

- On 8th March, 1996, the government of erstwhile (undivided) Andhra Pradesh had issued **GO 111 prohibiting development or construction works in the catchment area of the Osman Sagar and Himayat Sagar lakes** up to a radius of 10 km.
- The GO prohibited the setting up of industries, residential colonies, hotels, etc. which cause pollution.
- The aim of the restrictions was to **protect the catchment area, and to keep the reservoirs pollution-free.**
 - The lakes had been supplying water to Hyderabad for nearly 70 years and were the main source of drinking water for the city at the time.

When and why were these reservoirs constructed?

- The reservoirs were created by **building dams on the Musi** (also known as Moosa or Muchkunda) river, a **major tributary of the Krishna**, to protect Hyderabad from floods.
- The proposal to build the dams came after a major flood during the reign of the sixth nizam Mahbub Ali Khan (1869-1911) in 1908, in which more than 15,000 people were killed.
- The lakes came into being during the reign of the last nizam, Osman Ali Khan (1911-48). Osman Sagar was completed in 1921, and Himayat Sagar in 1927. The nizam's guesthouse at Osman Sagar is now a heritage building.

Why has the government withdrawn GO 111?

- The city **no longer depends on these two reservoirs** for water supply, and there was no need to continue with the restrictions on development in the catchment radius.
- Hyderabad's drinking water **requirement has increased to more than 600 Million Gallons per Day (MGD), which is being drawn from other sources** including the Krishna river.

What are environmentalists and activists saying?

- They are still an **important water source for the city.**
- A huge concrete jungle will come up around them. It seems the powerful real estate lobby put a lot of pressure.
- There are already over 10,000 illegal constructions around the two lakes.
- The reservoirs, located in the southwest direction of the city, also **provide quality wind during the southwest monsoon.** Any kind of pollution in those areas would affect the wind quality.
- The **Murugavani National Park** between the twin reservoirs and the entire area acts as a heat absorption unit for the city and if that is allowed to get concretised, the city would become a furnace.

Krishna River

- **Source:** It originates near Mahabaleshwar (Satara) in Maharashtra. It is the second biggest river in peninsular India after the Godavari River.
- **Drainage:** It runs from four states Maharashtra (303 km), North Karnataka (480 km) and the rest of its 1300 km journey in Telangana and Andhra Pradesh before it empties into the Bay of Bengal.
- **Tributaries:** Tungabhadra, Mallaprabha, Koyna, Bhima, Ghataprabha, Yerla, Warna, Dindi, Musi and Dudhganga.



[Source: IE](#)

IDEX and Defence India Start-Up Challenge

For Prelims: Innovations for Defence Excellence (iDEX) Prime, Defence India Start-up Challenge, DefConnect 2.0, Defence Innovation Organisation

For Mains: Atal Innovation Mission, Startups/MSMEs, Government Initiatives Regarding Indigenization

Why in the News?

Recently, **the Ministry of Defence** has launched **Innovations for Defence Excellence (iDEX) Prime** and the sixth **Defence India Start-up Challenge (DISC 6)** during **DefConnect 2.0** in New Delhi.

- DefConnect 2.0 is a one-day event to bring together start-ups, big companies and armed forces personnel to boost indigenous innovation in the defence sector.

What is Innovation for Defence Ecosystem (iDEX)?

- iDEX, **launched in 2018**, is an ecosystem to foster innovation & technology development in Defence and Aerospace by engaging innovators & entrepreneurs to deliver technologically

advanced solutions for modernizing the Indian Military.

▪ **Core Objectives:**

- **Indigenization:** Rapid development of new, indigenized and innovative technology.
 - **Innovation:** Creates a culture of engagement with innovative startups to encourage co-creation.
- It provides funding/grants to MSMEs, start-ups, individual innovators, R&D institutes and academia to carry out research and development.
 - The **iDEX-Prime** aims to support projects requiring support beyond Rs 1.5 crore up to Rs 10 crore, to help ever-growing start-ups in the defence sector.
 - iDEX is funded and managed by **“Defence Innovation Organisation”**.
 - iDEX portal was launched to provide wider publicity and better visibility of iDEX activities and enable more efficient running of future challenges through better information management.

Defence Innovation Organisation (DIO)

- DIO is a not for profit organisation formed under section 8 of the Companies Act 2013.
- It is funded by Hindustan Aeronautics Limited (HAL) and Bharat Electronics Limited (BEL).
- It provides high-level policy guidance to iDEX.

What is Defence India Start-up Challenge?

- DISC aims at supporting [Startups/MSMEs](#) (Micro Small and Medium Enterprises) / Innovators to create prototypes and/or commercialize products/solutions in National Defence and Security.
- The **First Defence India Startup Challenge (DISC)** was launched on **4th Aug 2018** at Bengaluru.
- It was launched by the **Ministry of Defence** in partnership with [Atal Innovation Mission](#).
 - Atal Innovation Mission (AIM) is Government of **India’s flagship initiative to create and promote a culture of innovation and entrepreneurship** across the length and breadth of our country.
- Under the program, the start-ups, Indian companies and individual innovators (including research & academic institutions) can participate.
- DISC 6 witnessed the **participation of newly-formed seven defence companies**, the [Indian Coast Guard](#) and organisations under the Ministry of Home Affairs for the first time.

What are Government Initiatives Regarding Indigenisation?

- [First Negative Indigenisation](#)
- [Positive Indigenisation List](#)
- [New FDI Policy in Defence Sector](#)
- [Defence Acquisition Procedure 2020](#)
- [Defence Industrial Corridors](#)

[Source: PIB](#)

National Apprenticeship Mela

Why in News?

The Ministry of Skill Development and Entrepreneurship has conducted a National Apprenticeship Mela.

- The National Policy of Skill Development and Entrepreneurship, 2015 recognizes apprenticeship as a means to provide gainful employment to a skilled workforce with adequate compensation.
- Apprenticeship is a Skill Training program wherein a person is engaged by a company as an apprentice and gains classroom (theory) learning for a short period, followed by on-the-job (practical) training.

What is the National Apprenticeship Mela?

- The aim is **to support the hiring of more than one lakh apprentices and assist employers in tapping the right talent** and developing it further with training and providing practical skill sets.
- Applicants will get **a monthly stipend as per the Government standards for developing new skills**, an opportunity to earn while they learn.
- Individuals having a 5th–12th grade pass certificate, a skill training certificate, an ITI Diploma, or a graduate degree were eligible to participate in the PM Apprenticeship Mela.
- The candidates will get **certificates, recognized by National Council for Vocational Education and Training (NCVET)**, increasing the chances of their employability after the training.
 - **NCVET** was notified by MSDE on 5th December 2018.

What are the Government Policies related to Apprenticeship?

- The **Apprentices Act, 1961** was enacted with the objective of regulating the program of training of apprentices in the industry by utilizing the facilities available therein for imparting on-the-job training.
 - Ministry of Skill Development and Entrepreneurship is the administrative ministry responsible for implementation of the Act.
- The government has **brought comprehensive amendments in the Act in December 2014** to make it more attractive for both industry and youth.
 - Major changes **introduced in the amendment are:**
 - Replacing the outdated system of trade wise and unit wise regulation of apprentices with a band of 2.5% to 10% of the total workforce (including contractual workers), introduction of optional trades, removing stringent clauses like imprisonment & allowing industries to out-source basic training.
- **National Apprenticeship Promotion Scheme:**
 - National Apprenticeship Promotion Scheme (NAPS) was launched on **19th August 2016** to promote apprenticeship training and increase the engagement of apprentices.
 - NAPS has replaced **Apprentice Protsahan Yojna (APY)**.
 - **The scheme has the following two components:**
 - **Reimbursement of 25% of prescribed stipend** subject to a maximum of Rs. 1500/- per month per apprentice by the Government of India to all employers who engage apprentices.
 - **Reimbursement of cost of basic training** (upto a limit of Rs. 7500/- for a maximum of 500 hours/3 months) by the Government of India to Basic Training Providers (BTPs) in respect of apprentices who come directly for apprenticeship training without any formal training.

What are the Initiatives to Promote Apprenticeships?

- [Scheme for Higher Education Youth in Apprenticeship and Skills \(SHREYAS\)](#)
- [Skills Strengthening for Industrial Value Enhancement Scheme](#)
- [YuWaah Youth Skilling Initiative](#)
- [Pradhan Mantri Kaushal Vikas Yojana](#)

Source: PIB

PDF Refernece URL: <https://www.drishtias.com/current-affairs-news-analysis-editorials/news-analysis/23-04-2022/print>