

THINK IAS

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CURRENT **नामा**

10 September 2024

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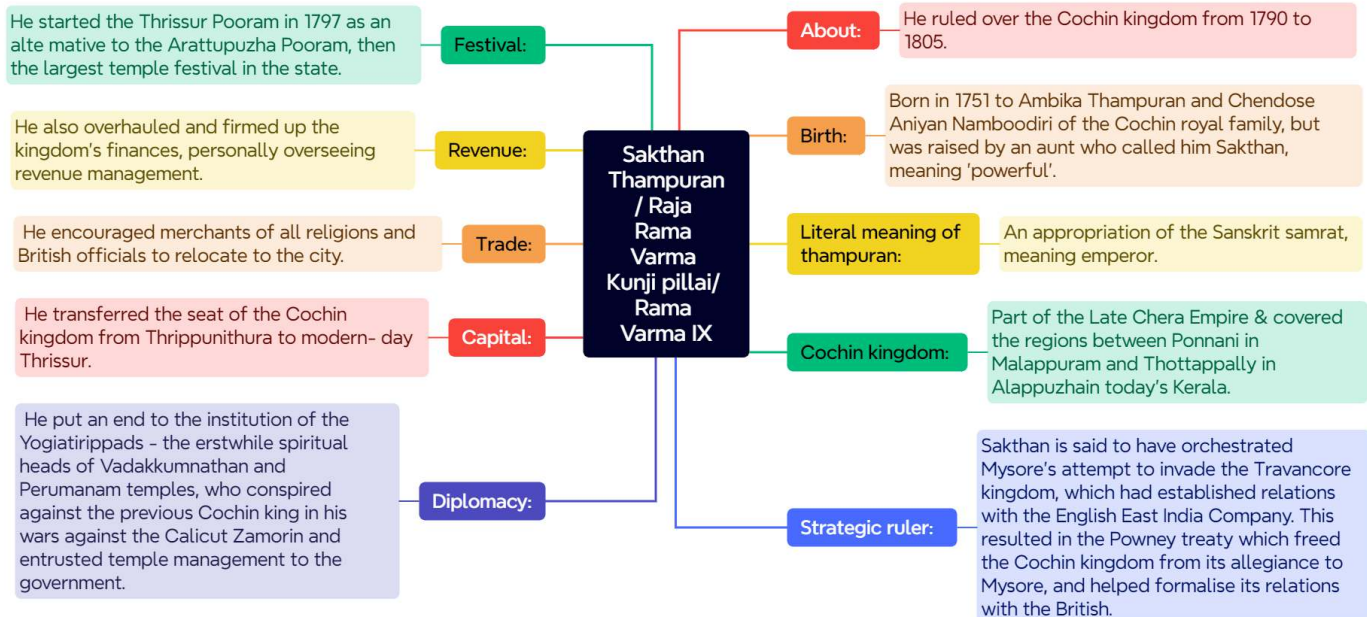
 **SAMYAK IAS, NEAR RIDDHI-SIDDHI, JAIPUR**

Art and Culture

1. Sakthan Thampuran And His Importance To Thrissur – Indian Express

Context »

Minister of State for Tourism and Thrissur recently pledged to replace a statue of Sakthan Thampuran that was knocked over by a state transport bus in June by a new bronze statue if the Kerala government did not do so within 14 days.



Geography

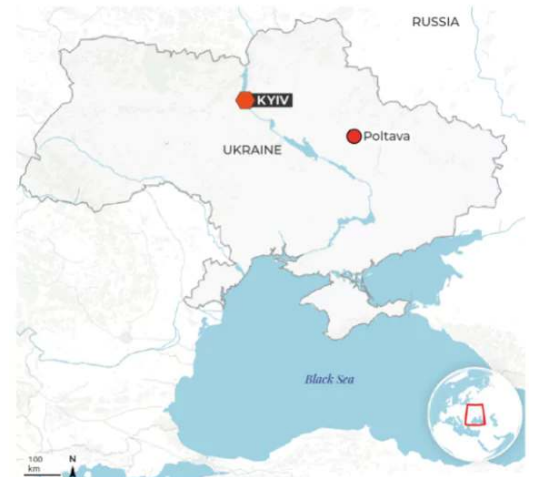
2. Poltava – Indian Express

- About:** A city in east-central Ukraine located 300 kilometres (189 miles) east of Kyiv, the capital of Ukraine along the Vorskla River.
- Battle of Poltava:** In 1709, Peter I the Great inflicted a crushing defeat on Charles XII of Sweden outside Poltava after Charles had laid siege to the town for three months in the Great Northern War. The battle ended with Sweden becoming a major power and marked the beginning of Russian supremacy in **eastern Europe**.
- Livelihood:** A fertile agricultural region and has a range of industries processing farm produce.

RUSSIA-UKRAINE WAR

Over 40 killed in Russian strike on Poltava

Two Russian ballistic missiles struck an educational facility and hospital in central Ukraine's Poltava city, killing at least 41 people and injuring another 180, Ukrainian President Volodymyr Zelenskyy says.



Society

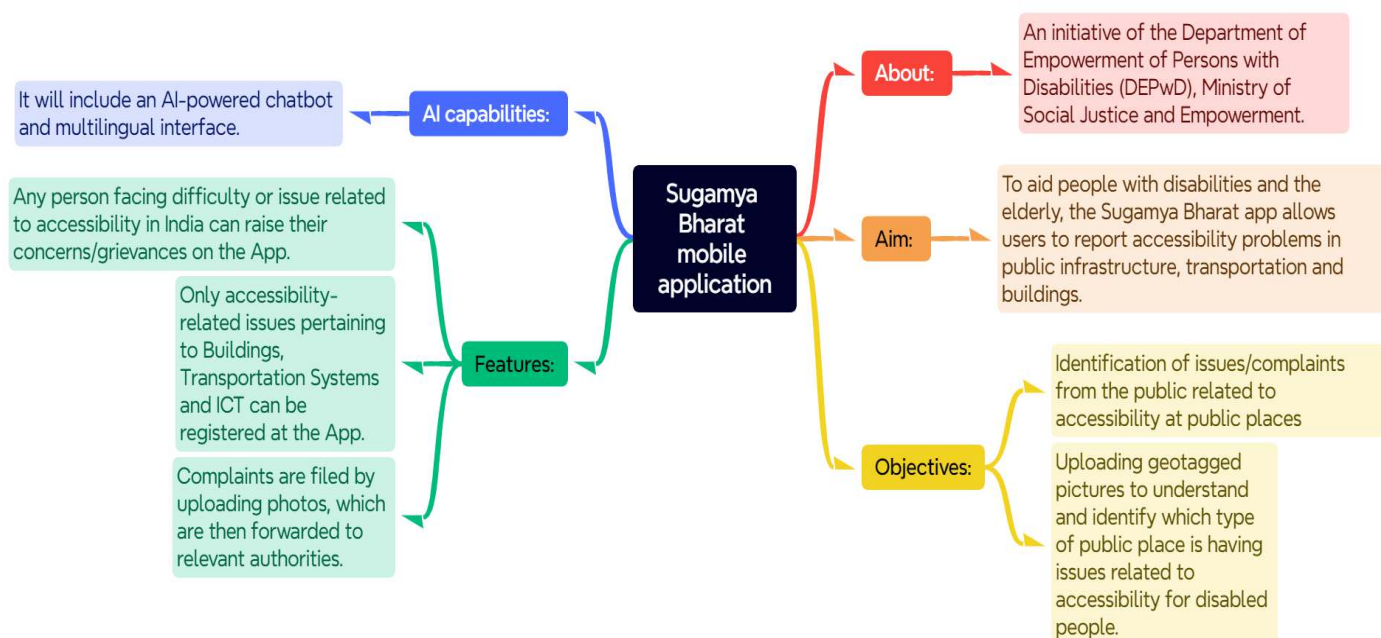
3. On the challenges to road safety in India – The Hindu

Context >>

The **“India Status Report on Road Safety 2024,”** prepared by the TRIP Centre at IIT Delhi, not only highlights India's slow progress toward meeting international goals of reducing road accident fatalities, but also emphasises the organic connection between road construction, mobility, and the need for a differentiated approach to mitigate road accidents.



4. Sugamya Bharat mobile application – The Hindu



World Affairs

5. Nuclear to LNG, India & UAE ink 4 key pacts to expand energy ties – Indian Express

Context »

India and the United Arab Emirates recently signed four pacts to expand energy cooperation as Indian Prime Minister held bilateral talks with the visiting Abu Dhabi Crown Prince Sheikh Khaled bin Mohamed bin Zayed Al Nahyan.

Agreements

- **2 agreements for long-term LNG supply:** Signed between Abu Dhabi National Oil Company (ADNOC) and IOC Ltd & between ADNOC and India Strategic Petroleum Reserve Ltd (ISPRL).
- **Agreement on nuclear energy:** Emirates Nuclear Energy Company (ENEC) and Nuclear Power Corporation of India Ltd (NPCIL) also inked an MoU for operation and maintenance of Barakah Nuclear Power Plant.
- **Production concession agreement:** Signed for Abu Dhabi Onshore Block 1 between Urja Bharat and ADNOC.
- **Agreement on food parks:** A separate pact was inked between the Gujarat government and Abu Dhabi Developmental Holding Company PJSC on setting up food parks in India.

6. Oil-rich UAE completes Arab world's first nuclear plant – Indian Express

Context >>

The United Arab Emirates has successfully completed the Arab world's first nuclear power plant, the Barakah Nuclear Energy Plant, the state-owned Emirates Nuclear Energy Corporation (ENEC) said in a statement.

Barakah Nuclear Energy Plant

ARAB WORLD'S FIRST NUCLEAR PLANT

Barakah nuclear energy plant

Four 1,400MW advanced pressurised water reactors built by South Korea's KEPCO

Reactor 2
Completed

Reactor 1
Connects to the UAE power grid

Reactor 3
Is 92 per cent complete

Reactor 4
Is 85 per cent complete

Transmission lines

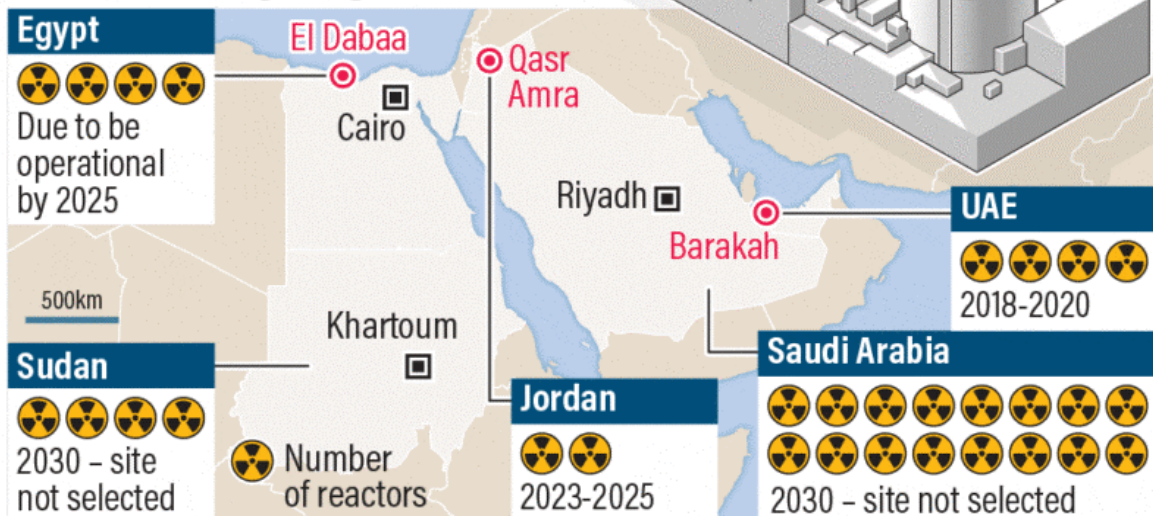
Combined output 5,600MW.
Will supply up to 25 per cent of UAE's electricity needs

APR-1400 reactor
APR-1400 reactor containment building. Reactor fuel is manufactured in South Korea

Turbine building

Auxiliary building

Arab states going nuclear



Sources: ENEC, Institute for Policy and Strategy, World Nuclear Association, Graphic News

- **Location:** Al Dhafra within the Emirate of Abu Dhabi, UAE, on the Arabian Gulf, about 53 km west-southwest of the city of Ruwais.
- **Construction:** Started in July 2012 & started operations in 2020.
- **Components:** 4 nuclear reactors which once fully operational will prevent the release of up to 21 million tonnes of carbon emissions every year.
- **Capacity:** It will produce 40 terawatt-hours (TWh) of electricity annually.
- **Significance:** Can provide up to 25% of the electricity needs of the UAE.



Economy

7. GoM to decide on tax on health, life covers soon - The Hindu

Context »

To soothe the growing clamour for a reduction in the 18% tax levy on the premium paid for health and life insurance policies, the GST Council recently set the stage for a possible rethink by mandating a stiff 50-day deadline for a new Group of Ministers (GoM) to review the tax rate.

On the table

The GST Council meeting on Monday took decisions on a host of pending issues



Health and Life insurance premiums:

50-day deadline for a new Group of Ministers (GoM) to go into demand for a reduction in the **18%** levy

Rationalising GST rates and slabs:

Panel to meet on **September 23** to discuss its broader mandate

GST Compensation Cess:

A new ministerial group is being formed to deliberate on the future of the levy on a few select items, including automobiles and demerit goods.



Real estate issues:

GoM has been asked to examine the issue of factoring in the cost of land while assessing the value of construction services in property transactions

UPS AND DOWNS

Tax on three cancer drugs cut from **12%** to **5%**

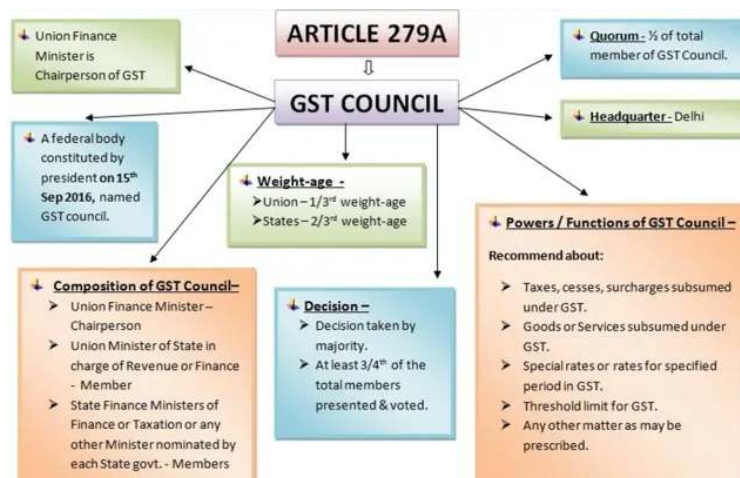


Levy on car seat covers up from **18%** to **28%**

Tax on some extruded savoury snacks go down from **18%** to **12%**



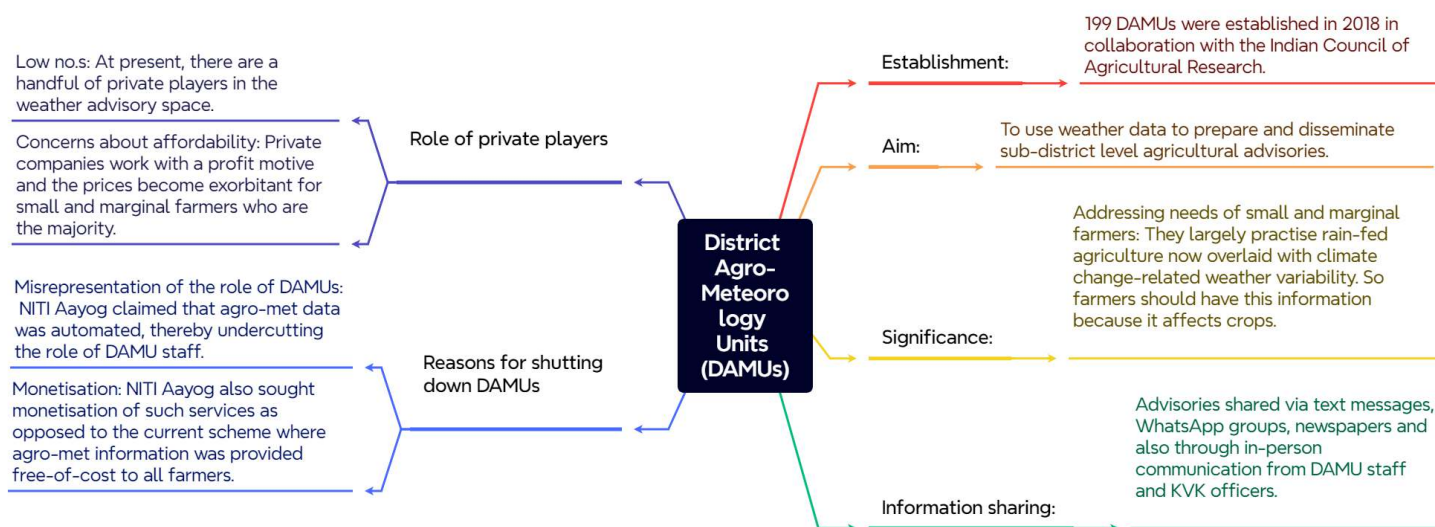
GST Council »



8. The role of district agro-met offices in supporting farmers – The Hindu

Context »

India Meteorological Department (IMD) is planning to revive District Agro-Meteorology Units (DAMUs) under the Gramin Krishi Mausam Sewa (GKMS) scheme.



Environment

9. Critically endangered elongated tortoise spotted in Aravallis for first time – Indian Express

Context »

A critically endangered species, the elongated tortoise (*Indotestudo elongata*), was spotted in Haryana's Damdama area during a research survey in the Aravallis.

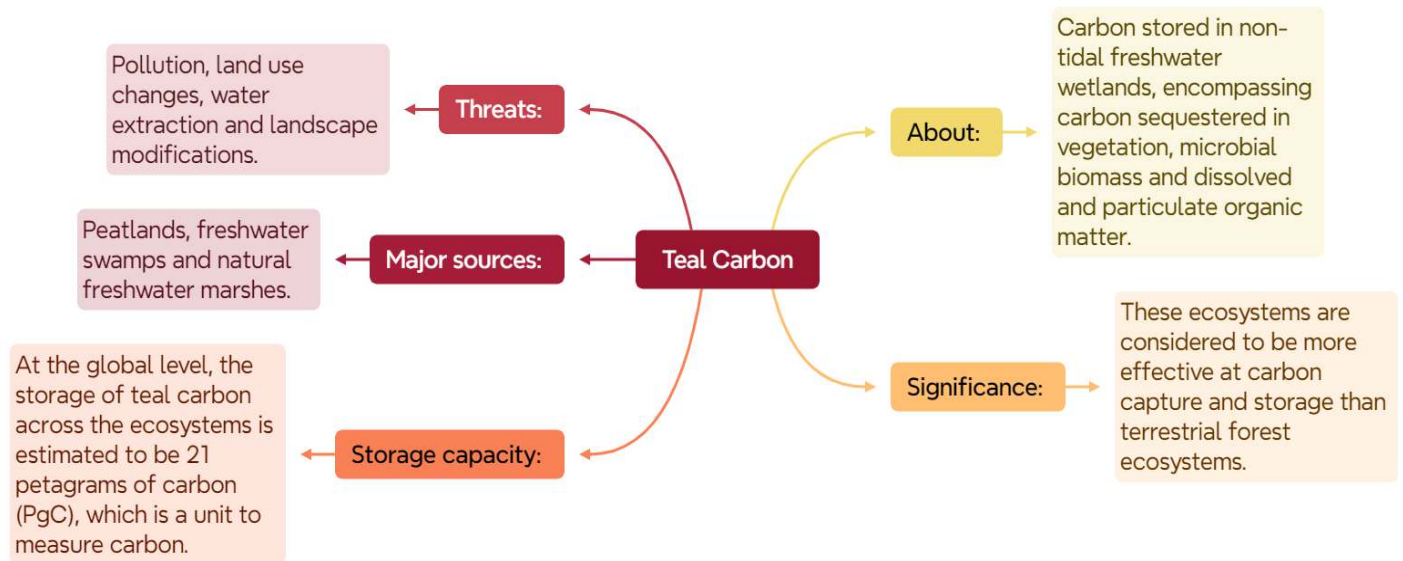
Elongated tortoise/ Sal Forest Tortoise

- **Scientific name:** *Indotestudo elongata*
- **Habitat:** Eastern, northern India and Southeast Asia.
- **IUCN Red List Status:** Critically Endangered.
- **CITES:** Appendix II
- **Wildlife (Protection) Act of 1972:** Schedule IV
- **Threats:** Hunted for food, local use and international wildlife trade.

10. India's first 'teal carbon' study bets on wetlands to address the challenges of climate adaptation and resilience – The Hindu

Context »

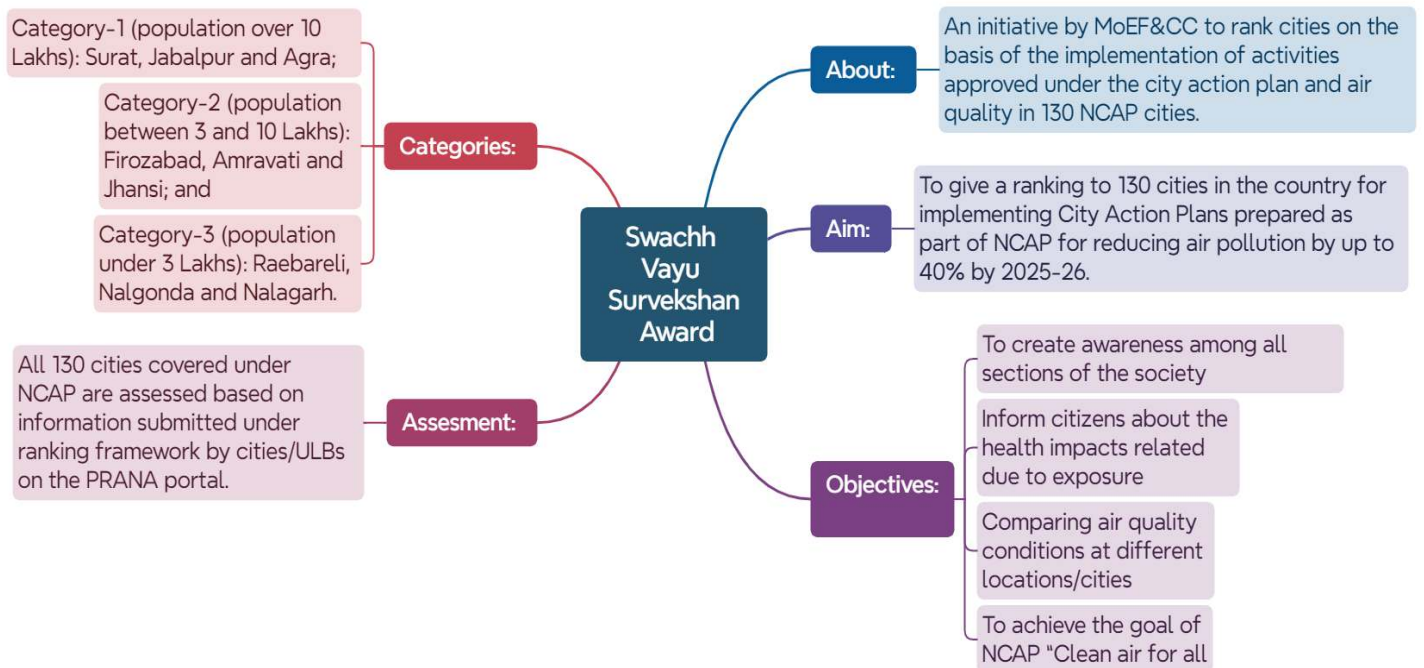
India's first study on 'teal carbon', undertaken at Keoladeo National Park (KNP) in Rajasthan's Bharatpur district, has highlighted the significance of wetland conservation to address the challenges of climate adaptation and resilience. The pilot project sought to develop holistic nature-based solutions to address climate change.



II. Swachh Vayu Survekshan Award, 2024 – PIB

Context >>

The International Day of Clean Air for Blue Skies (Swachh Vayu Diwas) was observed on 07.09.24 at Jaipur. Swachh Vayu Survekshan Awards were presented to the best performing cities.



12. Why do rockets require helium? – The Hindu

Two NASA astronauts aboard Boeing's Starliner will stay on the International Space Station for months because of a faulty propulsion system whose problems included helium leaks. Back on Earth, SpaceX's Polaris Dawn mission has been delayed because of helium issues on ground equipment.

Because there is very little helium in the Earth's atmosphere, leaks can be easily detected - making the gas important for spotting potential faults in a rocket or spacecraft's fuel systems.

Used to pressurize fuel tanks, ensuring fuel flows to the rocket's engines without interruption; and for cooling systems.

As fuel and oxidiser are burned in the rocket's engines, helium fills the resulting empty space in the tanks.

Being non-reactive, it can safely mingle with the tanks' residual contents.

Leakage:

Usage:

Helium

About:

An inert gas i.e. it does not react with other substances or combust - and its atomic number is 2, making it the second lightest element after hydrogen.

Features:

Very low boiling point (-268.9°C) allowing it to remain a gas even in super-cold environments

Non-toxic but cannot be breathed on its own, because it displaces the oxygen humans need for respiration.

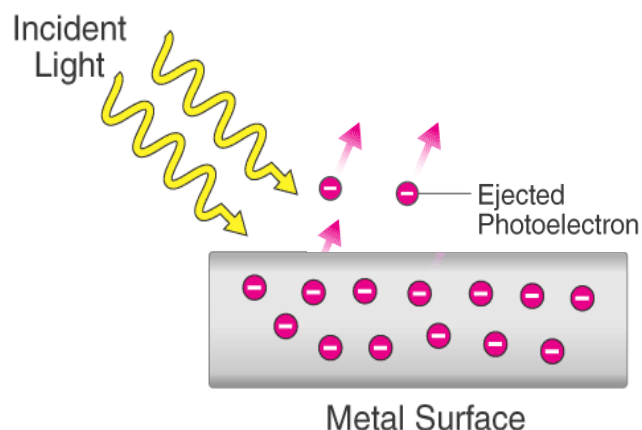
13. Superfast studies of photoelectric effect reveal the secrets of matter – The Hindu

Context »

In the early 20th century, physicists found that when a metal is irradiated with light, it emits some electrons. Curiously they found the emitted electrons' kinetic energy depended on the incoming rays' frequency, not intensity.

Photoelectric effect

- **Meaning:** The phenomenon of emission of electrons from the surface of the metal when the light of suitable frequency falls on it.
- **Photoelectrons:** Ejected electrons
- **Photocurrent:** The current produced due to emitted electrons (Photoelectrons).
- **Discovery:** Hallwach is credited with discovery of the photoelectric effect.



14. Kawasaki disease/ Kawasaki syndrome/ Mucocutaneous lymph node syndrome - The Hindu

- **About:** A rare disease that causes fever and inflammation of the blood vessels, mainly in children under 5 years of age & is one of the most common forms of acquired heart disease in children.

- **Impact:**

- The condition causes the immune system to attack blood vessels, which become inflamed and swollen.
- It tends to affect the coronary arteries, which carry blood to the heart muscle.

KAWASAKI DISEASE AND COVID-19

An inflammatory syndrome in children that resembles Kawasaki disease may be linked to COVID-19. UK pediatricians released a working definition that includes:



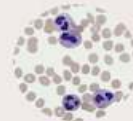
Persistent fever



Exclusion of any other microbial cause



Organ dysfunction with additional features



Inflammation (neutrophilia, elevated C-reactive protein level, lymphopenia)



Positive or negative SARS-CoV-2 polymerase chain reaction (PCR) test result

- It can also cause problems with lymph nodes, skin and the lining of a child's mouth, nose and throat.

- **Symptoms:** Fever, rash, swelling of the hands and feet, irritation and redness of the whites of the eyes, swollen lymph glands in the neck, and irritation and inflammation of the mouth, lips, and throat.

- **Discovery:** First discovered in Japan by Tomisaku Kawasaki in 1967

- **First case outside Japan:** Hawaii in 1976.

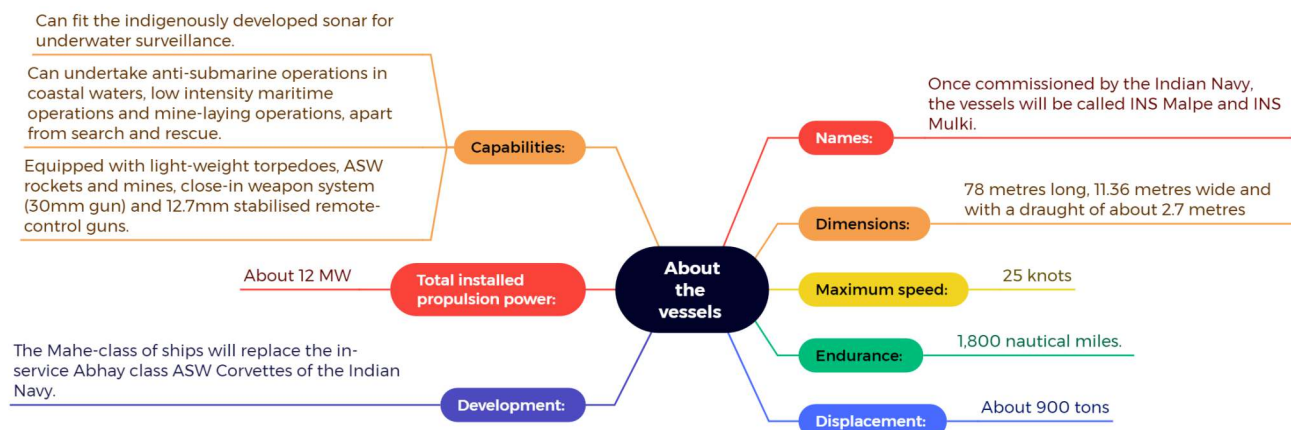
- **Cause:** The cause is unknown, although more cases happen in late winter and early spring.

Defence

15. Two anti-submarine warfare vessels for the Indian Navy launched at Cochin Shipyard - The Hindu

Context »

Two anti-submarine warfare shallow watercrafts vessels (ASWCWC) of the Indian Navy were launched at Cochin Shipyard recently. The vessels are the fourth and fifth ships in the series of eight such watercraft.



16. FATH-360 Missiles – Indian Express

Context »

As per a report, Iran has delivered short-range ballistic missiles, including the Fath-360, to Russia.



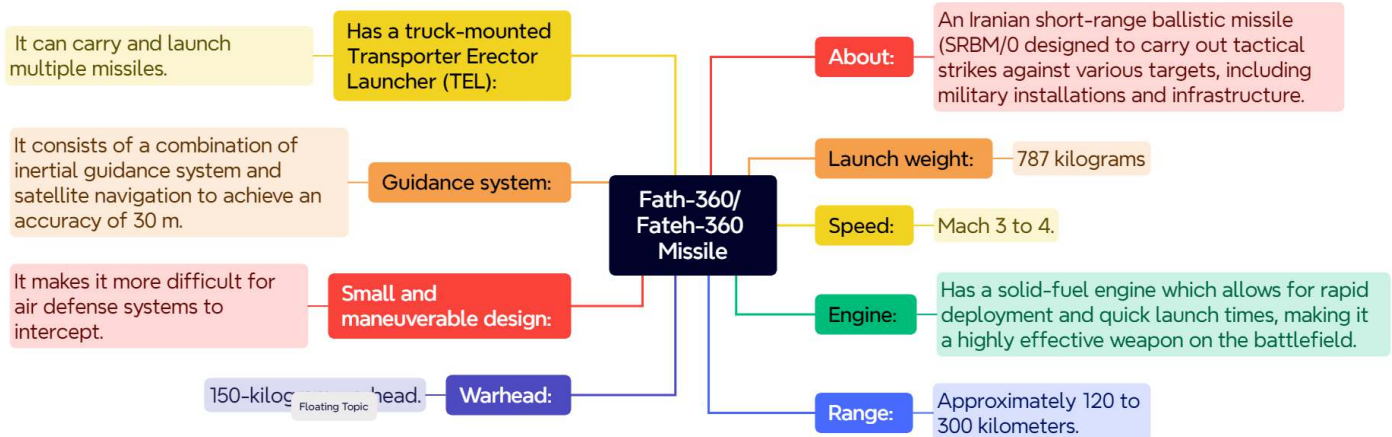
Fath-360



Fateh-110



Fath-360/Fateh-360 Missile



17. India's Military diplomacy in top gear with back-to-back exercises for three Services – The Hindu

Context »

India-U.S. Army exercise Yudh Abhyas is set to begin on September 9; multilateral air exercise Tarang Shakti is in progress, while exercise Malabar is scheduled next month.

Yudh Abhyas	Tarang Shakti	Exercise Malabar
<ul style="list-style-type: none"> ● About: A joint military exercise conducted annually between India and USA. ● Maiden edition: 2004. ● Aim: To promote cooperation between the two militaries while sharing training, cultural exchanges and building joint operating skills. ● 2023 edition: Conducted at Fort Wainwright, Alaska, USA. ● Yudh Abhyas 2024: 20th edition ● Location: Mahajan Field Firing Range in Rajasthan ● Features: A range of advanced military tactics and coordinated manoeuvres aimed at improving the readiness of both armies in high-stakes scenarios. ● US contingent: Around 600 personnel & U.S. Army is also set to deploy Stryker infantry vehicles and the M142 HIMARS (High Mobility Artillery Rocket System). 	<ul style="list-style-type: none"> ● About: The largest international air exercise ever conducted in India, with invitations extended to 51 countries. ● Aim: To strengthen strategic relations with our friends from the international community. ● Phase one: Conducted at Suler in Tamil Nadu. ● Phase two: Held at Jodhpur in Rajasthan from September 1 to 14 with participation from Australia, Bangladesh, Greece, Singapore, UAE and the USA with their assets. 	<ul style="list-style-type: none"> ● Maiden edition: 1992 as a bilateral naval exercise between India and US navy. ● Indian side: The first Malabar Exercise in the Bay of Bengal took place in 2007. ● Other participants: Japan joined it in 2015 whereas in 2020, the Australian Navy joined it. ● Aim: To coordinate for a free, open, and inclusive Indo-Pacific. ● Frequency: Annually in the Indian Ocean and Pacific Oceans alternatively. ● Malabar 2024: 28th Malabar naval exercise