

LEWIS SUPER ACIDS

Recently, researchers at Paderborn University, Germany have been able to make a unique class of catalysts called “Lewis super-acids”.



About Lewis Super Acids:

- Lewis super-acids are derived from Lewis acids, **named after the chemist, G N Lewis.**
- Lewis superacids are used as catalysts in chemistry to accelerate reactions.
- These are compounds that **add electron pairs** and can be used to break strong chemical bonds and speed up reactions.
- These are highly reactive reagents, thus difficult to produce and use.
- It enables non-biodegradable fluorinated hydrocarbons (similar to Teflon) to be converted back into sustainable chemicals.
- It can even convert climate-damaging greenhouse gases, such as sulphur hexafluoride into sustainable ones.

What are Lewis Acid and Base?

- **Lewis Acid:** It is an electron-pair acceptor such as a Hydrogen ion (H^+)
- **Lewis Base:** It is an electron-pair donor such as the hydroxide (OH^-) ion.

GREAT SEAHORSE

Extensive fishing off the Coromandel coast forced the great seahorse to migrate laboriously toward Odisha.



About Great Seahorse:

- Great seahorses can be found in relatively deep waters.
- These are **ovoviviparous** and the **males give birth to live young.**
- They also have some traits, such as **small body size, fast growth and high fecundity**, that may confer resilience to high levels of exploitation

- There are 46 known species of seahorses worldwide. India's coastal ecosystems are home to nine of the twelve species found in the **Indo-Pacific**, which is a hotspot for seahorse populations.
- They are distributed across diverse ecosystems such as **seagrass, mangroves, macroalgal beds, and coral reefs**.
- These nine species are distributed along the coasts of **eight States and five Union Territories from Gujarat to Odisha**, apart from Lakshadweep and the Andaman and Nicobar Islands.
- They are **poor swimmers but migrate to new habitats by rafting** (clinging to floating substrata such as macroalgae or plastic debris for dispersal by ocean currents) to ensure the survival of their population.
- **Conservation status**
 - **IUCN: Vulnerable**
 - **CITES: Appendix II**

AUSTRALIA PM TO VISIT INDIA

Why in news?

- Australian Prime Minister Anthony Albanese will be visiting India from March 8 to 11.
- This will be his first bilateral visit to the country after he took charge in May 2022.

India-Australia Relation

- India and Australia established diplomatic relations in the pre-Independence period, with the establishment of India Trade Office in Sydney in 1941.

Strategic Relationship

- In 2009, **India and Australia established a 'Strategic Partnership'**, including a Joint Declaration on Security Cooperation.
- This cooperation has been further elevated to **Comprehensive Strategic Partnership (CSP) in 2020**.
- The Australian foreign policy blueprint released in November 2017 sees India in the front rank of Australia's international partnerships.

- In order to pursue the CSP, Foreign and Defence Ministers of both countries agreed to meet in a '2+2' format biennially.

Economic and Trade Relationship

- As part of its efforts to develop strong economic relationship with India, the Australian Government commissioned the **India Economic Strategy to 2035** in July 2018.
 - This was done to define a pathway for Australia to unlock opportunities offered by Indian Economic growth.
- **Bilateral Trade:**
 - India had a trade deficit of \$8.5 billion with Australia in FY22, with \$8.3 billion worth of exports and \$16.8 billion worth of imports.
 - Total bilateral trade is expected to cross \$45-50 billion in five years from \$ 5 billion at present after the free trade deal comes into force.
 - India was the 8th largest trade partner of Australia with trade in goods and services representing 3% share of the total Australian trade in FY 2019-20.
- In April 2022, India and Australia signed an **Economic Co-operation and Trade Agreement (ECTA)**, which came into force in December 2022.
 - ECTA aims to double the bilateral trade to \$50 billion in five years and ease movement of people, goods and services across borders.

Civil Nuclear Cooperation

- A Civil Nuclear Cooperation Agreement between the two countries was signed in September 2014 during the visit of then PM Tony Abbott to India.
- The agreement provides the framework for substantial new trade in energy between Australia and India.

Defence Cooperation

- During PM Modi's visit to Australia in November 2014, both sides decided to extend defence cooperation to cover research, development and industry engagement.
- Arrangement concerning Mutual Logistics Support (MLSA) and Implementing Arrangement concerning cooperation in Defence Science and Technology were concluded during the Virtual Summit held in June 2020.

- India and Australia conduct their bilateral naval exercise 'AUSINDEX' since 2015.
- In 2018, Indian Air Force participated for the first time in the Exercise Pitch Black in Australia.
- In October-November 2020, the Australian Navy participated in Malabar Exercises.

Repatriation of Indian Cultural Artifacts:

- A number of artifacts have been successfully repatriated to India in recent years. They include:
 - Bronze Idol of Nataraja from Art Gallery of South Australia (AGSA) (2019),
 - Nagaraja stone sculpture (2020),
 - two Dwarpala stone sculptures (2020).

Indian Community in Australia

- The Indian community in Australia continues to grow in size and importance, with the population of about seven hundred thousand.
- India is one of the top sources of skilled immigrants to Australia.
- The number of Indian students continue to grow with approximately 105,000 students presently studying in Australian universities.
- After England, India was the second largest migrant group in Australia in 2020.

HALLMARK UNIQUE IDENTIFICATION (HUID)

Recently, the Union Ministry of Consumer Affairs said that the sale of gold jewellery mandates a Hallmark Unique Identification (HUID) from April 1, 2023.



About Hallmark Unique Identification:

- The HUID is a unique **6-digit alphanumeric code** consisting of numbers and letters.
- The HUID will be given to **every piece of jewellery at the time of hallmarking** and it is unique for every piece of jewellery.
- This unique number is stamped manually, on jewellery at the Assaying & Hallmarking centres.
- **Present scenario:** Earlier, the HUID used to be 4 digits and now both 4 and 6-digit HUIDs are used in the market.
- From April 1st 2023, only 6-digit alphanumeric codes will be allowed.

- Symbol - The BIS Hallmark consists of 3 symbols namely the **BIS logo, Purity/Fineness Grade, and a six-digit alphanumeric code**
- The authenticity of hallmarked jewellery can be checked by using the '**verify HUID**' feature on the **BIS Care App**.

What is the Bureau of Indian Standards?

- Bureau of Indian Standards (BIS), the National Standards Body of India established under the **BIS Act 2016**.
- **Objective:** Harmonious development of the activities of standardisation, and quality assurance of goods and articles.
- It works under the Ministry of Consumer Affairs, Food & Public Distribution.
- BIS represents India in International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC).

[WOMEN, BUSINESS AND THE LAW REPORT: INDIA SCORES 74.4 IN WORLD BANK INDEX ON LIFE CYCLE OF WORKING WOMEN](#)

Why in News?

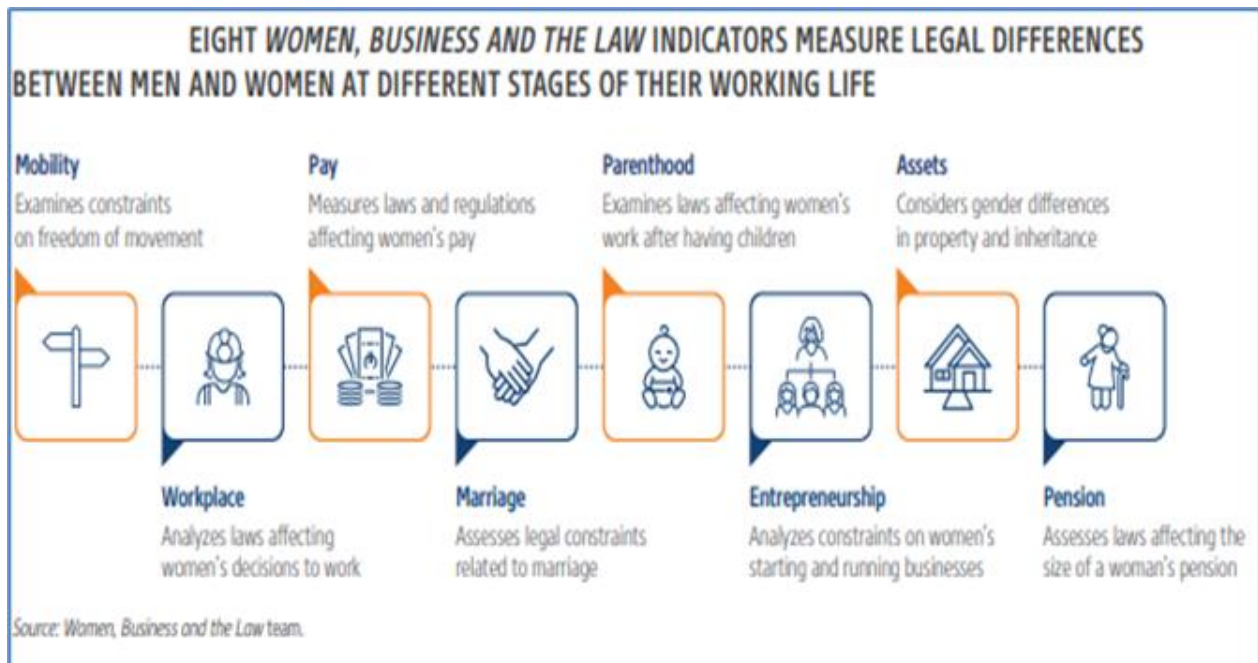
- According to the **World Bank's** (WB) Women, Business and the Law report 2023 - an index on the life cycle of a working woman, India's score dropped to 74.4 out of 100.

What is Women, Business and the Law (WBL) Project?



- It is a **World Bank Group** project collecting data on the **laws and regulations** that affect women's economic opportunity.
- It is committed to **informing research and policy discussions** about the state of women's economic opportunities and empowerment.
- It demonstrates the progress made while emphasising the work still to be done to **ensure economic empowerment for all**.

- Since 2009, the project has aided economies to **achieve gender equality and hence become more resilient.**
- It covers **190 economies and eight topics** relevant to women's economic participation and the **2023 report** measures the legal differences on access to economic opportunities between men and women.
- A **score of 100** on the Index means that women are on an equal standing with men on all the eight indicators being measured.
- In the 2023 index **only 14** (Belgium, Canada, Denmark, etc) economies scored a perfect 100.



News Summary Regarding WBL Report 2023:

- **What is the India Specific Findings in the WBL Report 2023?**
 - For India, the Index used data on the laws and regulations applicable in **Mumbai**, viewed as the country's main business city.
 - The laws affecting the Indian working **woman's pay, pension**, work after having children, starting and running a business, property and inheritance, do not provide for equality with Indian men, dragging India's score down to 74.4.

- **India scored higher than the 63.7 average** for the South Asian region, **though lower than Nepal** which had the region's highest score of 80.6.
- **India gets a perfect score**, when it comes to constraints on freedom of movement, laws affecting women's decisions to work and constraints related to marriage.
- **Reforms needed:** To improve on the Pay indicator, India may wish to consider -
 - Mandating **equal remuneration for work of equal value**,
 - Allowing women to work at night in the same way as men, and
 - Allowing women to work in an industrial job in the same way as men.

WHAT IS ENEMY PROPERTY IN INDIA?

The Central Government recently launched a National Survey of Enemy Properties, spread across 20 states and three Union territories.



About Enemy property:

- The enemy properties are those left behind by the people who took citizenship of Pakistan and China after leaving India during the partition and after 1962 war.
- The enemy properties are vested with the Custodian of Enemy Property for India (CEPI), an authority created under the Enemy Property Act 1968.
- The 2017 amendment to the Act (Enemy Property (Amendment and Validation) Act, 2017) stated that the successors of those who migrated to Pakistan and China ceased to have a claim over the properties left behind in India.
- The amended law stated that enemy property should continue to vest in the Custodian even if the enemy, enemy subject, or enemy firm ceases to be an enemy due to death, extinction, business winding up, or change of nationality or if the legal heir or successor is an Indian citizen or a citizen of a non-aggressive country.
- Of the total **9,406 enemy properties in India**, 9,280 are left behind by Pakistani nationals and 126 properties by Chinese nationals.

- **Maximum number of enemy properties is in Uttar Pradesh - 4,991. Bengal has 2,735, and Delhi has 487.**
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SULTANPUR NATIONAL PARK

The G20 delegates recently visited the Sultanpur National Park, which is one of the 75 Ramsar sites in the country.



About Sultanpur National Park:

- Sultanpur National Park, formerly known as Sultanpur Bird Sanctuary, is located in the Gurgaon district in Haryana.
 - It is spread over 1.42 sq km, **comprising mainly wetlands.**
 - This national park is a **major habitat for aquatic birds**, including migratory and resident birds.
 - It was **notified as a Ramsar site**, a wetland of international importance, **in 2021.**
 - **Vegetation: Tropical and dry deciduous.**
 - **Flora: Grasses, dhok, khair, tendu, ber, jamun, banyan tree, neem, berberis, Acacia nilotica and Acacia tortilis.**
 - **Fauna:**
 - More than **320 species of birds** have been recorded from the Park.
 - This is a very important **wintering ground for waterfowl.**
 - Some of the resident and migratory species of birds found in the area are the **Common hoopoe, Purple sunbird, Black francolin, Little cormorant, Indian Cormorant, Siberian Crane, Greater Flamingo, Common Teal, Common Greenshank, Ruff, etc.**
 - **Other Key Fauna: There is no large wild mammal of conservation concern in this Park. Nilgai antelope (Boselaphus tragocamelus) is the major wild ungulate in this park.**
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WHAT IS THE ORGANISATION OF ISLAMIC COOPERATION (OIC)?

India recently rejected the Organisation of Islamic Cooperation's (OIC) "unwarranted references" to the Union Territory of Jammu and Kashmir



About the Organisation of Islamic Cooperation (OIC):

• It is the **second-largest intergovernmental organization** in the world after the United Nations, with a **collective population reaching over 1.8 billion**.

- It has a **membership of 57 states** spread over **four continents**.
- **Objective:** It aims to **preserve Islamic values**, safeguard and defend the national sovereignty and independence of member states, and contribute to international peace and security.
- The OIC is the **collective voice of the Muslim world** to ensure and safeguard their interest in economic, socio, and political areas.
- It was established in **September 1969**.
- **Headquarters: Jeddah, Saudi Arabia.**
- Its **official languages are Arabic, English, and French.**
- The OIC partners with international mechanisms (including every specialized UN agency), governments, and civil society organizations (CSOs) to address issues of concern to its member states and Muslims worldwide.