

FOOD SAFETY AND STANDARDS AUTHORITY OF INDIA (FSSAI)

The Food Safety and Standards Authority of India (FSSAI) is working towards creating a network of 34 microbiology labs across the country that will be equipped to test food products.



Food Safety and Standards Authority of India (FSSAI) is an autonomous body established under the **Ministry of Health and Family Welfare**, Government of India. It has been established under the **Food Safety and Standards Act, 2006**, which is a consolidating statute related to food safety and regulation in India.

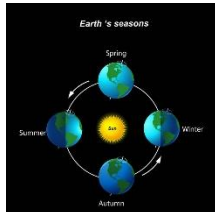
- **Mission: Set globally benchmarked standards for food**, encourage and ensure that food businesses adhere to these standards, **adopt good manufacturing and hygiene practices**, and ultimately enable citizens to access safe and right food.

Functions:

- It is responsible for protecting and promoting public health through the **regulation and supervision of food safety**.
- It **lays down standards and guidelines** in relation to articles of food and provides for licensing, registration, and accreditation for food business operators.
- **Anyone selling or importing food in India needs a food license issued by FSSAI**.
- Its officers **carry out food import controls** and ensure that the contain no harmful ingredients. It is also responsible for the **accreditation of food testing laboratories** throughout India.
- The FSSAI is **responsible for the Food Certification in India**. It is mandated to specify systems for enforcing its standards, for accreditation of certification systems, and for certification of food safety management systems for food businesses.

WHAT IS SPRING EQUINOX?

March 19 marked the spring or vernal equinox, the first day of spring in the Northern Hemisphere.



- As Earth revolves around the Sun, there are two moments each year when the **Sun is exactly above the equator**. These moments — called **equinoxes** — occur around March 19, 20 or 21 and September 22 or 23.
- Equinox literally means “**equal night**,” since the length of day and night is nearly equal in all parts of the world during the equinoxes. The **March equinox marks when** the Northern Hemisphere starts to tilt toward the sun, which means **longer, sunnier days**.
- **In the Northern Hemisphere, the March equinox is called the vernal equinox**, because it signals the beginning of spring (vernal means fresh or new like the spring).
 - The **September equinox is called the autumnal equinox**, because it marks the first day of fall (autumn).
- When the Northern Hemisphere starts to tilt toward the sun in spring, the Southern Hemisphere starts to tilt away from the sun, signaling the start of fall.
 - Thus, **in the Southern Hemisphere, the March equinox is called the autumnal equinox**, and the September equinox is called the vernal equinox.
- While the March equinox brings later sunrises, earlier sunsets, chillier winds and dry, falling leaves in the Southern Hemisphere, while the reverse happens in the Northern Hemisphere.

INTERNATIONAL SEABED AUTHORITY (ISA)

The Council of the International Seabed Authority (ISA) commenced the first part of its 29th session recently.



International Seabed Authority (ISA) is an autonomous international organization established in 1994 to regulate mining and related activities in the

international seabed beyond national jurisdiction, an area that includes most of the world's oceans.

- The ISA came into existence upon the entry into force of the 1982 **United Nations Convention on the Law of the Sea (UNCLOS)**, which codified international law regarding territorial waters, sea lanes, and ocean resources.
- It **organizes and controls all mineral-resources-related activities in the Area** (the seabed and ocean floor and the subsoil thereof, beyond the limits of national jurisdiction) **for the benefit of humankind** as a whole.
- **Headquarters:** Kingston, Jamaica
- **Members:** As of May 2023, ISA has 169 Members, including 168 Member States and the European Union.
- **Functions:**
 - The ISA is responsible for **granting licenses and regulating activities** related to the exploration and exploitation of mineral resources in the international seabed.
 - It ensures that these activities are carried out in a manner that **protects the marine environment** and promotes the equitable and efficient utilization of resources.
- **Structure:**
 - The supreme authority of the ISA is the assembly, in which all ISA members are represented.
 - The assembly **sets general policies, establishes budgets**, and elects a 36-member council, which serves as the ISA's executive authority.
 - The council approves contracts with private corporations and government entities for exploration and mining in specified areas of the international seabed.
 - The council **oversees implementation of the seabed provisions of the UNCLOS** and establishes provisional rules and procedures (subject to approval by the assembly) by which the **ISA exercises its regulatory authority**.
 - The secretary-general of the ISA is nominated by the council and is elected by the assembly to a four-year term.

Key facts about the United Nations Convention on the Law of the Sea (UNCLOS):

- UNCLOS, also called the Law of the Sea Convention or the Law of the Sea Treaty, is an international agreement that **establishes a legal framework for all marine and maritime activities.**
- It lays down a comprehensive **regime of law and order in the world's oceans and seas,** establishing rules governing all uses of the oceans and their resources.
- It became effective on 16th November 1982. It **covers a wide range of issues, including:**
 - The **definition of maritime zones,** such as the territorial sea, the contiguous zone, the exclusive economic zone and the continental shelf.
 - The **rights and responsibilities of coastal states** and flag states.
 - The **conservation and management** of marine resources.
 - The **protection of the marine environment.**
 - The **peaceful settlement of disputes.**

WHAT IS REVERSE FLIPPING?

Startups such as Pine Labs, Zepto, Meesho are the latest new-age companies looking to move headquarters to India.



Reverse Flipping is a term used to describe the **trend of overseas start-ups shifting their domicile to India** and listing on Indian stock exchanges.

- The general motivation for a reverse flip is the **increased certainty of an exit at a higher valuation in India.** This trend has been gaining traction in recent years, as start-ups look to capitalise on India's large and growing economy, access to deeper pools of venture capital, favourable tax regimes, better intellectual property protection, a young and educated population, and favourable government policies.

- The **Economic Survey 2022-23** recognised the concept of **reverse flipping** and proposed ways to accelerate the process, such as simplifying the processes for tax vacations, taxation of ESOPs, capital movements, decreasing tax layers, and the like.

What is flipping:

- Flipping is **when an Indian company transforms into a 100% subsidiary of a foreign entity** after it has moved its headquarters overseas, including a transfer of its intellectual property (IP) and others.
- It effectively transforms an Indian startup (company) into a 100% subsidiary of a foreign entity, with the **founders and investors retaining the same ownership via the foreign entity**, having swapped all shares.
- What's the harm to India from flipping?
 - **Brain drain** of entrepreneurial talent from India.
 - It results in **value creation in foreign jurisdictions** rather than in India.
 - It also results in the **loss of Intellectual Property and Tax Revenue** for the country.

STATE OF GLOBAL CLIMATE REPORT 2023

As per the State of the Global Climate report, published recently, 2023 was found to be the hottest year on record.



State of Global Climate Report is an annual report published by the **World Meteorological Organisation (WMO)**. Many experts and partners contribute to the report, including UN organizations, National Meteorological and Hydrological Services (NMHSs), and Global Data and Analysis Centers, as well as Regional Climate Centres, the World Climate Research Programme (WCRP), the Global Atmosphere Watch (GAW), the Global Cryosphere Watch and the Copernicus Climate Change Service operated by ECMWF.

Highlights of the 2023 Report:

- **2023 was the hottest year** on record, with the global average near-surface temperature at 1.45 °Celsius (with a margin of uncertainty of ± 0.12 °C) above the pre-industrial baseline. It was the **warmest ten-year period on record**.
- On an average day in 2023, nearly **one third of the global ocean** was **gripped by a marine heatwave**, harming vital ecosystems and food systems. Towards the end of 2023, over 90% of the ocean had experienced heatwave conditions at some point during the year.
- The **global set of reference glaciers** suffered the **largest loss of ice on record** (since 1950), driven by extreme melt in both western North America and Europe, according to preliminary data.
- **In 2023, renewable capacity additions increased by almost 50%** from 2022, for a total of 510 gigawatts (GW), the highest rate observed in the past two decades.

Key Facts about World Meteorological Organisation (WMO):

- It is a **specialized agency of the United Nations (UN)**. It originated from the International Meteorological Organization (IMO), which was founded in 1873.
- **Established in 1950**, WMO became the specialized agency of the UN for meteorology (weather and climate), operational hydrology, and related geophysical sciences.
- **Headquarters: Geneva, Switzerland.**
- Currently, it has a membership of 191 countries.
- **Governance Structure:**
 - Its **supreme body is the World Meteorological Congress**, which consists of representatives of all members. It meets at least every four years to set general policy and adopt regulations.
 - A 36-member Executive Council meets annually and implements policy. The Secretariat, headed by a secretary-general appointed by the congress for a four-year term, serves as the administrative centre of the organization.

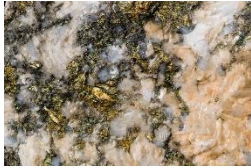
WHAT IS EUROPEAN UNION'S ARTIFICIAL INTELLIGENCE ACT?



- It is the world's first comprehensive Artificial Intelligence law. It lays down rules and guidelines for specific risks associated with the use of AI in areas like biometric authentication, facial recognition, high-risk domains such as healthcare, and deep fakes.
- Taking a **horizontal, risk-based approach** that will apply across sectors of AI development, the EU AI Act classifies the technology into **four categories: Prohibited, high-risk, limited-risk, and minimal-risk.**
 - **Systems that violate or threaten human rights** through, for example, social scoring—creating “risk” profiles of people based on “desirable” or “undesirable” behaviour — or mass surveillance **are banned outright.**
 - **High-risk systems, which have a significant impact on people's lives and rights**, such as those used for biometric identification or in education, health, and law enforcement, will have to meet strict requirements, including human oversight and security and conformity assessment, before they can be put on the market.
 - **Systems involving user interaction, like chatbots and image-generation programmes**, are **classified as limited-risk** and are required to inform users that they are interacting with AI and allow them to opt out.
 - The **most widely used systems, which pose no or negligible risk**, such as spam filters and smart appliances, are **categorised as minimal-risk**. They will be exempt from regulation, but will need to comply with existing laws.
- The law will **apply to any companies doing business in the European Union**, and allows for penalties of up to 7% of global turnover or €35 million, whichever is higher, for those that don't keep their use of AI under control.
- The act also **enshrines the right of consumers to make complaints** about the inappropriate use of AI by businesses and to receive meaningful explanations for decisions taken by an AI that affect their rights.

WHAT IS BIOMINING?

Delhi's biomining project to clear landfill sites is likely to miss the latest deadline of 2024.



Biomining is the technique of **extracting metals from ores** and other solid materials, typically using micro-organisms (bacteria, algae, fungi, or plants). It may also be **used to clean up sites** that have been **polluted with metals**.

Process:

- **Valuable metals** are commonly bound up in solid minerals. Some **microbes can oxidize** those metals, allowing them to dissolve in water.
- It is the basic process behind most biomining, which is **used for metals** that can be more **easily recovered when dissolved** than from solid rocks.
- A **different biomining technique**, for metals which are not dissolved by the microbes, **uses microbes to break down the surrounding minerals**, making it easier to recover the metal of interest directly from the remaining rock.
- When the metal of interest is directly dissolved, the biomining process is called “**bioleaching**,” and when the metal of interest is made more accessible or “enriched” in the material left behind, it is called “**biooxidation**.”

What metals are currently biomined?

- Most current biomining operations target **valuable metals like copper, uranium, nickel, and gold** that are commonly found in sulfidic (sulfur-bearing) minerals.
- Microbes are especially good at oxidizing sulfidic minerals, converting metals like iron and copper into forms that can dissolve more easily.
- Compared to typical mining that uses hazardous chemicals and has a large CO2 footprint, biomining represents an **environmentally friendly** alternative, **producing very little** (if at all) **hazardous waste**.

INTERNATIONAL LABOUR ORGANIZATION (ILO)

- The ILO was created in 1919, as part of the **Treaty of Versailles** that ended World War I, to reflect the belief that universal and lasting peace can be accomplished only if it's based on social justice.
- In 1946, the ILO became a **specialized agency of the United Nations**.
- The ILO is devoted to promoting social justice and internationally recognized human and labour rights, pursuing its founding mission that labour peace is essential to prosperity.
- **Headquarters:** Geneva, Switzerland

Objectives of ILO:

- Promote and realize standards and fundamental principles and rights at work,
- Create greater opportunities for women and men to decent employment and income,
- Enhance the coverage and effectiveness of social protection for all, and
- Strengthen tripartism and social dialogue.

Functions of ILO:

- Creation of coordinated policies and programs, directed at solving social and labour issues.
- Adoption of international labour standards in the form of conventions and recommendations and control over their implementation.
- Human rights protection (the right to work, freedom of association, collective negotiations, protection against forced labour, protection against discrimination, etc.).

Membership of ILO:

- The ILO has **187** state members.
- India is a **founding member of the ILO** and it has been a permanent member of the ILO Governing Body since 1922.
- The ILO constitution permits any member of the UN to become a member of the ILO.
- To gain membership, a nation must inform the director-general that it accepts all the obligations of the ILO constitution.