

9 August, 2023

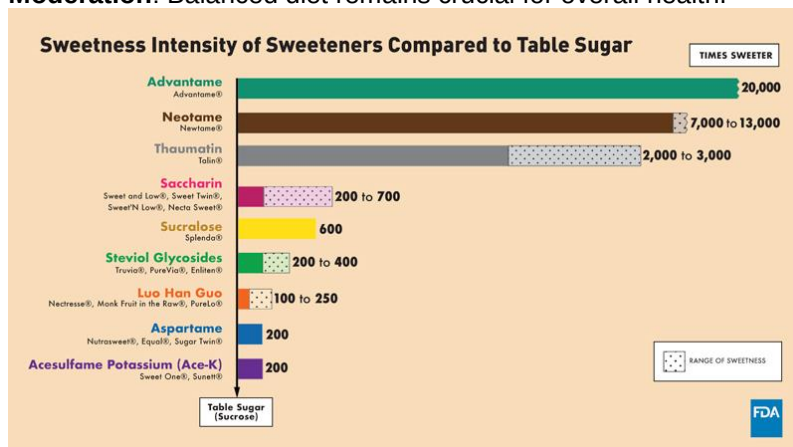
Guidelines for Usage of Artificial Sweeteners

Context: ICMR notes "limited evidence" of carcinogenicity in humans for aspartame, per IARC and WHO-FAO assessments.

- The Indian Council of Medical Research (ICMR) states limited evidence for carcinogenicity in humans regarding aspartame health impacts assessed by the International Agency for Research on Cancer (IARC) and the Joint Expert Committee on Food Additives (JECFA) of the World Health Organization (WHO) and the Food and Agriculture Organization (FAO).
- The IARC labels aspartame "possibly carcinogenic" (Group 2B); JECFA sets an acceptable daily intake at 40 mg/kg body weight.
- The Food Safety and Standards Authority of India (FSSAI) establishes standards for artificial sweeteners based on risk assessment, Acceptable Daily Intake (ADI) by JECFA, and harmonization with the Codex Alimentarius Commission.

Artificial Sweeteners

- Sugar substitutes with sweetness but fewer or no calories.
- **Intense sweetness:** Small amounts needed due to high sweetness.
- **Types:** Aspartame, saccharin, sucralose, stevia, and more.
- **Uses:** Found in diet products, desserts, beverages, and snacks.
- **Low calorie:** Common in "diet" or "light" items for reduced calories.
- **Safety:** Approved by FDA, EFSA with limits; ongoing research on long-term effects.
 - Recently, a report said Coca-Cola to be containing aspartame which is considered a mild carcinogen
- **Individual response:** Sensitivity varies; some may taste an aftertaste.
- **Diabetes and weight:** Used by those managing diabetes or aiming to reduce calories.
- **Labelling:** Often marked as "sugar-free" or "low-calorie."
- **Moderation:** Balanced diet remains crucial for overall health.



India-Vietnam Relations

Context: The 5th India-Vietnam Joint Trade Sub-Commission (JTSC) meeting held in New Delhi.

- Bilateral trade of USD 14.70 Bn in 2022-23, with Vietnam as 5th largest ASEAN trade partner for India.
- **Focus areas:** agriculture, textiles, pharmaceuticals, energy, machinery, etc.
- Addressed market access issues, technical barriers, pending registrations.
- **Discussed service sector cooperation:** IT, finance, education, healthcare, tourism, startups.
- **Explored logistics solutions for trade enhancement:** shipping, freight, air connectivity.

India-Vietnam Relations

- **Background:**
 - Defence cooperation key aspect of Comprehensive Strategic Partnership since 2016.
 - India established Consul General in Hanoi in 1956; Vietnam established diplomatic mission in 1972.

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- India supported Vietnam against US intervention, affecting Indo-US relations.
- Strengthened ties through India's "Look East Policy" in the early 1990s.
- **Areas of Cooperation:**
 - Strategic Partnership: Aligned with India's Indo-Pacific Oceans Initiative and ASEAN's Indo-Pacific Outlook for shared security and growth.
 - Economic Cooperation: Improved trade post ASEAN-India Free Trade Agreement; India investing in Vietnam's development and capacity.
- **Trade Relations:**
 - Bilateral trade FY 2021-22: USD 14.14 billion.
 - Indian exports: USD 6.70 billion; imports: USD 7.44 billion.
- **Defence Cooperation:**
 - Vietnam seeks modernization; India aids defence capabilities for regional peace.
 - Interest in India's Akash systems, Dhruv helicopters, and Brahmos missiles.
 - Collaboration in capacity building, security concerns, personnel training, and defence R&D.
 - Joint exercises, like INS Kiltan's mission to Vietnam.
- **China Factor:**
 - Shared concerns due to history of conflict and ongoing border issues with China.
 - Closer ties to counter China's aggressive actions.
- **Cooperation at Multiple Fora:**
 - Both non-permanent members at UN Security Council in 2021.
 - Active collaboration in regional forums like East Asia Summit, Mekong Ganga Cooperation, ASEM.
- **People-to-People Contacts:**
 - ASEAN-India Year of Tourism in 2019; simplified visa regime for bilateral tourism.
 - Mahatma@150 events in 2018-19, including artificial limb fitment camps in Vietnam under "India for Humanity" initiative.

Exercise Malabar

Context: The Australian Navy is to host the Exercise Malabar, a 10-day event from August 11 to 21.

Overview

- Initiated in 1992, the Malabar naval exercise was initially bilateral (India-US).
- Paused after 1996 due to India's nuclear tests, it resumed annually in 2002.
- Japan and Australia joined in 2007, India-US-Japan consistently since 2014.
- In 2020, Australia joined on India's request for Indo-Pacific strategic containment.
- Malabar 2020 was notable for involving all four Quad members after a decade.
- Aims to support a free, open Indo-Pacific and uphold rules-based international order.

Malabar- 2023

- The Malabar naval exercises involve India, Japan, US, and Australia, focusing on air defense, sea operations, joint operations, and under-sea threat detection.
- Hosted by Australia, the 10-day event runs from August 11 to 21, featuring a harbor phase in Sydney and sea exercises.
- Participating ships include HMAS Choules and HMAS Brisbane from Australia, INS Kolkata and INS Sahyadri from India, and one warship each from the US and Japan.
- The exercise lacks submarines or an aircraft carrier, but maintains high complexity with multiple domains of warfare.
- Maritime surveillance aircraft, including Boeing P8I, play a significant role in anti-submarine warfare exercises.
- Aimed at inter-operability, the exercise emphasizes cooperation among platforms and is not targeted at China, despite the countries being Quad partners.
- Focus on maintaining a "free and open Indo-Pacific" reflects opposition to Chinese influence and ensuring open sea and air traffic.

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International Day of the World's Indigenous Peoples

Context: Globally, 9th August is celebrated as International Day of the World's Indigenous Peoples

- Globally celebrated on August 9, the day commemorates the first session of the Working Group on Indigenous Populations in 1982.
- This year's theme: "Indigenous Youth as Agents of Change for Self-determination."

Who are indigenous peoples?

- UN identifies 476 million indigenous people across 90 countries, comprising 6.2% of the global population.
- Indigenous people inherit unique cultures and environmentally linked practices.
- Their social, cultural, economic, and political traits differ from dominant societies.
- Despite cultural differences, they share common challenges in safeguarding their distinct rights.
- Historically, indigenous rights have often been violated, making them highly vulnerable.
- International community acknowledges the need for special measures to protect their rights and preserve cultures.
- Over 86% of indigenous people globally engage in the informal economy.
- In contrast, their non-indigenous counterparts involve 66% in the informal sector.

State of Tribals in India

- **Tribal Population:** Around 8.6% of India's total population, comprising approximately 104 million people, according to the 2011 Census.
- **Literacy Rate:** Tribal literacy rates were generally lower than the national average. In 2011, the literacy rate among tribal populations was about 59%, compared to the national average of around 74%.
- **Infant Mortality Rate (IMR):** Tribal areas often experience higher IMR compared to the national average. The IMR in tribal areas could be around 50 to 60 per 1,000 live births.
- **Maternal Mortality Rate (MMR):** The maternal mortality rate in tribal areas might be higher due to limited access to maternal care. Estimated figures could be around 150 to 200 maternal deaths per 100,000 live births.
- **Malnutrition:** Malnutrition rates among tribal children can be significantly higher. Rates of stunting, wasting, and underweight children might be around 40% or higher.
- **School Dropout Rates:** School dropout rates among tribal children, especially girls, can be high. Dropout rates could be around 30% to 40% or more.
- **Access to Clean Water and Sanitation:** Access to clean drinking water and sanitation facilities might be limited, with potentially less than 50% of households having access to improved sanitation.
- **Land Ownership and Livelihoods:** Land rights and traditional livelihoods might still be challenging for many tribal communities, leading to issues of displacement and poverty.

NEWS IN BETWEEN THE LINES

ECOWAS



What is ECOWAS?

ECOWAS stands for the Economic Community of West African States. It is a regional intergovernmental organization in West Africa. It was established on May 28, 1975.

Membership:

ECOWAS has 15 member countries: Benin, Burkina Faso, Cape Verde, Cote d'Ivoire, The Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Sierra Leone, Senegal and Togo.

Main Objectives:

- To promote economic integration and cooperation among member states.
- To foster sustainable development and improve the quality of life for citizens.
- To achieve peace, security, and political stability in the region.
- To enhance social and cultural ties among member states.

ECOWAS Response to Niger Coup:

- Mali and Burkina Faso express support, view attack on Niger as attack on them.
- Coup leaders attribute their actions to rising terrorist influence and security challenges.

Security Challenges and Refugee Crisis:

- From Jan 1 to Jun 30, 2023: 1,814 terrorist attack incidents, causing 4,593 fatalities.
- By April 2023, over half a million refugees documented in the region.

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Select Committee



What is the Select Committee?

The Select Committee is a temporary committee set up in the Parliament for a specific purpose, often to examine and review a particular bill.

Types of Committees in Parliament:

There are 12 Permanent Standing Committees and ad hoc (temporary) committees in Parliament. Permanent committees handle specific areas, while ad hoc committees address specific bills or issues.

Purpose of Select Committee:

A Select Committee's primary purpose is to examine bills in detail, clause by clause, to ensure clarity, intent, and effective implementation.

Composition of a Select Committee:

- Members are named in a motion and appointed by the House.
- Proportion of members from Rajya Sabha and Lok Sabha in Joint Committees is 1:2.

Evolution of Dinosaurs to Birds



Charles Darwin's Theory:

In 1859, Charles Darwin proposed the theory of evolution through natural selection in his book "On the Origin of Species."

Huxley's Hypothesis:

In the 1870s, Thomas Henry Huxley suggested that birds might be descendants of extinct dinosaurs.

Evolution of Birds from Dinosaurs:

- Fossils of Protarchaeopteryx and Caudipteryx (discovered in China) showed stages in bird evolution from terrestrial dinosaurs.
- Developed birdlike features including wings, wishbones and feathers.

Birds and Dinosaurs' Brain Sizes:

Both birds and dinosaurs had similar brain sizes despite other parts evolving to become smaller.

Nasal Turbinates:

- Nasal turbinates are scroll-like structures found in warm-blooded creatures' nasal cavities.
- Responsible for regulating heat and moisture exchange during respiration.

Brain Cooling Hypothesis:

Warm-blooded animals' larger nasal cavities likely help cool their larger brains.

Methane-Reducing Cattle Breeding



What is Methane-Reducing Cattle Breeding?

Methane-reducing cattle breeding refers to the selective breeding of cattle with genetic traits that result in lower emissions of methane gas during digestion. Cattle contribute significantly to global greenhouse gas emissions, with livestock accounting for 14.5% of emissions.

Objective: Develop cattle breeds emitting less methane to lower greenhouse gas impact.

Method: Selective breeding using low-methane genetic traits in cattle.

Advantages:

- Mitigates climate change by reducing methane emissions.
- Supports sustainable and eco-friendly cattle farming.

Process:

Use of commercially available genetics with low-methane traits. Breeding with bulls possessing these traits.

Impact: Potential annual 1.5% reduction in methane emissions from dairy herds.

Benefits:

- Contributes to global climate goals.
- Balances economic and environmental aspects of cattle farming.

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Vaquita Porpoise



What is Vaquita Porpoise?

The Vaquita Porpoise, scientifically known as *Phocoena sinus*, is a small cetacean species and the world's smallest and most endangered porpoise. It is unique among porpoises due to its occurrence in warm waters. The name "vaquita" translates to "little cow" in Spanish, referring to its small size and appearance.

Habitat and Range:

- Inhabits a tiny 1,500 square-mile area in Mexico's Gulf of California.
- Near the town of San Felipe.

Length: Up to five feet.

Threats and Conservation Status:

- Population declining due to bycatch in gillnets set for shrimp and fish.
- Primarily affected by totoaba fishing.

IUCN Status: Critically Endangered.

CITES Listing: Appendix I.

International Whaling Commission (IWC):

- Established under the International Convention for the Regulation of Whaling (ICRW) in 1946.
- Aims to conserve whale stocks and regulate the whaling industry.

Headquarters: Impington, near Cambridge, England.

Places in News Uglegorsk

Location:

- Uglegorsk is a village in Russia's far east.
- The village is known for its proximity to the Vostochny cosmodrome, a major space launch facility.

Political Boundaries:

- Uglegorsk lies within the boundaries of the Russian Federation.
- It is part of the Russian administrative divisions.

Cosmodrome:

Vostochny Cosmodrome is located 3,450 miles (5,550 km) east of Moscow.

It serves as a launch site for various space missions, including lunar missions.

Lunar Mission:

- Russia's Luna-25 lunar landing spacecraft is set to launch from Vostochny Cosmodrome.
- Aims to reach the south pole of the moon.

Launch Delay:

Originally planned for October 2021, the launch has been delayed for nearly two years.

Safety Measures:

- Due to the launch, residents of Uglegorsk are evacuated from their homes.
- Concerns about potential falling rocket stages prompt this safety precaution.



POINTS TO PONDER

- ❖ During Alqueva dam's construction, which plant's successful translocation is notable? - Cornflower (*Centaurea cyanus*)
- ❖ In Arkansas, a successful translocation of which carnivorous animal species resulted in over 2,500 individuals after 11 years? - Black-Footed Ferret
- ❖ What is the first milk produced by mammary glands after giving birth called? - Colostrum; Bonus: Indian sweet "kulfi."
- ❖ Which arachnid species exhibits mammalian-like lactation where newborns depend on milk for nutrition? - "Dwarf Water Spider."
- ❖ In what event and year were pink ribbons for breast cancer awareness first distributed to survivors and participants? - "Susan G. Komen Race for the Cure," 1991.

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