

SHORTNEWS:

1.TIANWEN-2 MISSION

- China is set to launch its **first asteroid sampling mission** called **Tianwen-2**.

About Tianwen-2 Mission

- The mission will investigate **469219 Kamo‘oalewa**, a **near-Earth asteroid** that orbits the Sun close to Earth.
- It aims to collect samples from Kamo‘oalewa using a **“touch-and-go” technique** or possibly an **“anchor and attach” method**.
- It aims to advance scientific understanding of asteroids and demonstrate China’s growing capabilities in deep-space exploration.
 - If successful, China will join the ranks of the U.S. and Japan as one of the few countries to have collected and returned asteroid samples.

Kamo‘oalewa

- It is a small **quasi-satellite asteroid of Earth** and it was discovered in 2016 by the **Pan-STARRS 1 telescope in Hawaii**.
- It orbits the Sun but appears to follow Earth due to its unique, elliptical path.
- It has been in its current orbit for about 100 years and is expected to remain for another 300 years.

2.Matryoshka

- Google’s annual I/O developer conference in 2025 showcased **AI Matryoshka**.

About

- **AI Matryoshka** is **Google’s strategic framework** for **layering AI models** and capabilities across its **entire ecosystem**—mirroring the structure of **Russian nesting dolls (matryoshkas)** where **each layer supports the next**.
- AI Matryoshka represents **Google’s strategic vision** to interlace AI throughout its **entire product and service lineup**.
- By nesting AI functionalities within each layer of its ecosystem, Google aims to **deliver seamless, intelligent experiences** that adapt to **users’ needs across various platforms and devices**.

Significance

- **AI Matryoshka** reflects how **each AI capability** is nested inside another, allowing:
 - Tight integration between hardware and software;
 - Reusability and specialization at different levels (from cloud to edge);
 - Seamless transitions between on-device and cloud-based intelligence.
- This creates a unified AI experience, where different AI “layers” work together depending on the task’s complexity and device capability.

3.MORINGA

- PKM1, a variety of **Moringa oleifera**, has created a global impact, especially in countries such as Senegal, Rwanda and Madagascar in the African continent.

About Moringa (Moringa oleifera)

- **Origin and Distribution:**
 - Native to India, especially the foothills of the Himalayas.
 - Now widely cultivated in South Asia, Africa, and tropical regions of Central and South America.
- **Agricultural Requirements:**
 - Prefers deep sandy loam soil with pH between 6.5–8.0.
 - Thrives in semi-arid and tropical climates. Optimal temperature: 25–30°C.
 - Drought-resistant and fast-growing — can be harvested multiple times a year.
- **Medicinal & Health Uses:**
 - Used in Ayurveda to treat over 300 conditions.
 - Known for anti-inflammatory, antimicrobial, and anti-diabetic properties.
 - Seeds are used to purify water due to their coagulating ability.